ely or successively within the influence of the magnets, and to make the influence of the magnets more nearly continuous, or less interrupted. A third improvement consists in the construction of the helices with flat cores arranged radially to the center of the wheel or circular séries; and a fourth improvement consists in making the ends or pole; of the magnets of such taper form, that their edges are radial to the center of motion, or so nearly so as to be always parallel with the edges of the cores of the helices at the time of their passing. The object of these third and fourth improvements is to make the change of polarity in the core of each helix more sudden and complete, and the electric impulse consequently stronger. A fifth improvement consists in an intensity regulator of novel character by which the quality of the current can be readily varied from high to low intensity, to adapt it to the particular duty required. The credit of these improvements is due to H . N. Baker, of Binghamton, N. Y.

## balancing millstomes.

The object of this invention is to obtain a ready means hy which the revolving stone may be balanced while both in motion and at rest, and the parallelism of the faces of a pair of millstones always preserved. The "runner" or recolving millstone of a pair, when hung on its spindle, after completion, will be found in an unbalanced state, and the plan has usually been to balance the stone by inserting a piece of lead into its top at the light side of it. This plan of course, would balance the stone while at rest, but, when made to rotate the centrifugal force generated by its rotation and the position of the lead, which is above the point of suspension of the stone, causes the latter to be out of a state of equipoise, and hence the parellelism of the stones when at work is not preserved. Again, if the stone be balanced while in motion, but out of balance or state of equipoise when at rest, the unequal density or disposition of weight relatively with the point of suspension, will subject the spindle to considerable lateral strain, and it would be liable to heat and be injured by wear. In order to obviate these difficulties the inventor employs a band or strap, which encircles the "runner" circumferentially with a weight interposed between it and the side of the stone, the band and weight being in or about in a horizontal plane with the point of suspension of the stone, and the desired end is thercby obtained. This device has been patented to D. Fellenbaum, of Lancaster, Pa.

## COTTON GINS.

This invention relates to an improved mode of feeding or presenting the seed-cotton to the action of the saws, rollers or other means employed for separating the staple from the sced. The object of this invention is to produce a uniform motion of the roll of cotton within the hopper throughout the entire length and circumference of the roll, and to support or so sustain the roll, that the portion in immediate contact with the saws or other lint-scparating device will not be deflected by gravity, or other causes, so as to press upon said device, a contingency which is injurious, especially where saws are employed, as a "cutting" and "napping" of the lint is the result. The invention consists in the employ ment of a cylinder constructed of light wood or other suitable material studded with radial spikes or teeth, and placed logitudinally within the hopper, whereby the desired end is obtained. The patentee of this invention is H. L. Emery, of Albany, N. Y.
self-acting waste gate.
This invention has for its object the preventing of the washing away of mill dams by freshets, and by such a means that it will be automatic in its operations, that is to say, self-acting, requiring no special manipulation, and therefore performing at any moment when required its proper function. To this end there is inserted in the mill dam, a gate frame, provided with a gate or gates of suitable dimensions to allow when open the full volume of water to pass throagh unobstructed, or nearly so, the gates being arranged in such a way that the water within the dam when reaching a certain hight, will by its pressure open the gate or gates and pass through, thereby relieving the dam of any undue pressure. This improvement was patented by Sidney Hud son, of Milford, Mich.

## thinnina boards.

This invention is an improved machine for planing boards to render them thinner, it is intended more
especially for carriage makers for reducing the thickness of boards to furm panels for carriages. The invention consists in combining with a guide and gage box which ray be made light and portable, a plane stock carrying a curved plane iron, a feed roller for carrying the stuff up to the cutter, and an adjustible board by which whe stuff may be nicely gaged so as to be cut as thin as desirable. The credit of this invention is due to Sharon Case, of Lumpkin, Ga.

## ATMOSPHERIC PILE DRIVER.

This invention consists in furnishing the air-lock which is employed to form the cap of the pile in driving, with a supplementary air-lock so applied as to permit the discharge through it of solid matters which may have been taken from within the pile, while the water is excluded by an artificial pressure of air within the main air-lock and pile, without the necessity of opening the main air-lock to the external atmosphere. The inventor of this improvement is W. S. Smith, of Trenton, N. J.

## TUCK and plait folder.

This invention consists in a certain construction and arrangement of the parts of a tuck and plait folder, which provides for its adjustment in a very simple manner to perform the folding of tucks and plaits of various widths and at various distances apart, and for the easy introduction of the fabric to be folded. This improvement was designed by Reuben Brady, of this city.

## vehicles.

The object of this invention is to make a buggv easy of access from the rear, to avoid the wheels, in case of muddy weather, or an accident by falling under them, should the horse suddenly start. It consists in dividing the seat and box vertically through the middle, and hinging one or both to the floor of the buggy at the back end, said seat being furnished on its under side, with suitable steps which, when the seat is thrown back will serve for an entrance up into, or as a passage out of the buggy, when the seat may be returned to its former position. E. S. Wicklin and J. D. Weaver, of Carlinville, Ill., are the inventors.

issued from tile united states patent office por tie were ziding eertegoer 4, 1860.

## Croported Oficially for the Sotentifo Amerioan.]

- Pamplinets giving full marticulare of the mode of anpl|ing for


29,850.-H. N. Baker, ot Binghampton, N. Y., for an Improved Magncto-electric Apparatus:
I chim, first, The enployment, in a magneto-electric mnchine


spirin rilation to ench other, as and for the purno or mnna wheels in


 combined substantitilly ne degeribect.
he holinow rotary min slant on their way to the intenglty regulato und pole changer, substantially as described.
20,851.-Jonathan Ball, of Elmirn, N. Y., for an Im-
provement in Mode of Preparing Wood for Um brella Sticks:
I claim, first, The process of curing, consisting of the opprations of
 Second. I claim, in conibinatinn with the deseribed rocepa of cur-
ine, the dis in of the wood simultanenisly with or bo the same oper-

29,852.-I. S. Barher, of New York Citv, for an Improvement in Machines for Turning Ovals:
 shown and this I elaim whether the driving pulley have the name

Second, I claim the mivable and adjustable pattern zuidef
Wherebv various aizes, slapes and widhs can be cut from one and the same pattern.
29,853.-W. H. Barber, of Woloottville, Conn., for an
Improvement in Seed Planters:

shares, I $J$, as and for the purpose shown and described.
CThis invention oonsists in arranging on the driving shaft two or number and length of strokes of the seed slide can be regulated according to the nature of the seed to be sown and according to the
ground in which the seed is to be deposit d. It coneista also in com. bining the seed ellde with a vertioul fat spring passing through the center of the hopper in such a manner that by the action of said spring, the eeod is stirred, and the fillng of the seed cells facilitatcd.]
29, b54.-Thos. Beach, of Frecport, Pa., for an Improvement in Stcam Hnmmers:
 slinft of geum and atmughieric hammere, as that the hammer ehat

 purposea set forth.
29,855.-Benjamin Bogue, of Trenton, Iowa, for an Improvement in Horselowers:
I claim the arrangement of the finnip, A, and the wheel, $B$, the in-

20,856.-Reuben Brady, of New York City, for an Improvement in Tuck and Pluit Folders:

I claim the conatrnction of the confining plate, , , when hin qeed to | the lowe |
| :---: |
| Bcibibed |

scribed. 1 Ilaim the ledge, it on the plate, $P$, when arranged to operate
as ind for the purpose get fonth. as and for thie purpose eet fitht of the plate, $A$, with the platrs, $F$ H,
 also serves as a guide to the thick last sewed, ail as eet fortb.
29,857.-C. D. Brewer, of Lewishurg, Pa., for an Improvement in Machines for Dressing Millstones: I claim the use o fthe plate, $N$, when the same is made adjuatnble



20, 858.-T. E. C. Brinly, of Louisville, Ky., for an Improvement in Plows:

 forth.
CThis invention consists in a novel and improved way of atteching the standard of the plowto the moldboard and landeide, wherebs a vers firmand durable attacliment is obtiined, and one that will admit ofthe nt:andard being readily detached, if broknn, and a new one adjusted in its place. The invention further consigts in $n$ novel arrangement of a cutter and the methad of nttacling tho same to the plow, whereby a firmand stiff cutter is obtained and the durability of the plow increased.]
29,859.-Thos. Byrne, of Batnn Ronge, La., for an Improvement in the Preparation of Flour:
I claim the bringing of flour of whent and other grains in contact
20,860.-Thos. Byrne, of Baton Rouge, La., for an Im-
provement in Mode of Applying Sulphurous Acid to Cane Juice:


juices, as set forth.
29,861. - Sharon Case, of Lumpkin, Ga., for an Improved Machine for Thimning Boards:

 purposes set forth.
20,862-C. 'T. Chester, of New York City, for an Improvement in Electro-Magnets:
I chim, firft, In combination with enros confine , p na to preven the action of the currentthrough a surrouncing helix fom inprating
mntion to them. Helices wound on enools of hard rubler or othe motion to them. Helices wound on spools of hard rubleer or other
suitanle material cores may be removed from them when requisite, substantially for the purposes ret forth
Seconn, I claim holding, moving and nijusting the cores by means of the screw and spring, fubstantially as deacelibed.
Thirct, Coupling and supporting the helical epools by the deuble Third, Coupling nnd supporting
rings, substantially as described.
29,863.-L. S. Chichester, of New York City, for añ Improved Sad Iron:

and described.
[The object of this invention is to render the emoothing iron os goose much more efficient than those of usual construction, bs fa cilitating the rubbing and pressing operation to which the fabric is
subjected, and at the same time preserve all the facilitics of the old subjected, and at the same time preselve all the facilitics of the
fron in smoothing orironing out the small folds in the fabric.]
20,864.-J. M. Cnoper, of Pittsbıra, Pa., for an Im-
provement in Revolving Firc-arms:
 around the trigeer pin, po as to prevent its action being interfered
with br the pressmre of the sides of the lock frine.
The with be the pressnre of the gides of the lock frin me.
The une of a projection at the front end of the prolecting
throngh the lork frame, and pressine sagingt the circumferince of the rotating breech, in combinstion with suitable recesses in the ctr-
cumferance of the rotating cylinder, wheteby when the trlqger is
not drawn back, and the prts are oft reat. the cytinder will be secured from rotation in such a position that the end of the hammer
will be eituate between two of the niplee, and not uponor in front
of any of them, thua avoiding in a great measure the dad ger of $\left\{\begin{array}{l}\text { of any of them, thue aroining in } \\ \text { prematre or accidental dipoplarge }\end{array}\right.$ promature or accidental diacilitree.
Alsothe arrangempnt of the trigger, hammer. and
constructed as described tor the purgoses described.
29,865.-A. B. Crawford, of Piqua, Ohio, for an Im provement in Threshing Machines:
 $\mathrm{h}_{\mathrm{a}}$ and arme, $\mathrm{r}^{1}$, and stacker, 8; all operating as set forth and for the

29,866. -G. W. Efner and S. A. Sperrv, of Ann Ar-
bor, Mich., for an Improvement in Carriaces: We claim the hollow axle, B, in combination with the double
spring catch, $n$ nat the ninnne of nperating the eame by turning thespring within the ellipticaloncning the the outer end of the axle,
aen mone of atherhmg and detaching the whep.


29,867.-H. L. Emery, of Albany, N. Y., for an Improvement in Cotton Gins:
I claim the emplosment or use, within the saw chamber, A, of a
cotton $\operatorname{gin}$ of a rotating cylinder or sllaft, $C$, provided with spikes or teeth, $c$, for the purpose specified, sibstantianly as set forth $\mathrm{C}^{\text {I }}$, wiso chin thim the suan changement, , ta shown, of the cyllinder or shaf,
 mit of a necessary degree of late
as and for the purposes specified.
I turther claim, in connection with the journal opening, b, the disks
or circular plates, D , attached to the shaft for the purpose set forth 29,868. -Daniel Fasig, of Rowsburg, Ohio, for an Improved Feeder for Straw Cutters:
I climm the conmination with shaft, F, of the fianges, $c$ c. . tooth, $e$,
rack handle, $H$, and rake, $I$, arranged and made to operate in the manner and for the purpose set forth.
[This invention is a self-feeder for moving the straw or stalks to be cut up, to the cutters as they are operated. It consists in operating a rake, by a novel arrangement, so as to give to it an advancing movement up to the cutters at each revolution of the crank-shart that operates the knife; and said movement can be regulated at pleasure, to cut the straw longer or shorter.]
29,869.-D. Fellenbaum, of Lancaster, Pa., for an Im provement in Balancing Millstones:
I claim applying the weight, $E$, to the side of the revolving stone suspension, by means of a metal
device, for the purpose specified.
29,870.-H. E. Fickett, of Glenn's Falls, N. Y., for an Improved Clothes-dryer:
I claim the dryer, constructed substantially as described, in com-
bination with the standard, $F$, and ribbed socket, $G ;$ the whole ar26,871. - Luther Fogg; of Boston, Mass., for an Improvement in Skates:
I claim, first, The oscillating runner, being hinged to the stands
proiecting from the stock, substantlally in the manner and for the purpose described.
Second, I claim the extension plate connect.ed to the strap, sub-
stantially in the manner and for the purpose set forth. 29,872. - Albert Fuller, of Cincinnati, Ohio, for an Improvement in Hydrants:
I claim, first, The yielding valve, $\mathbf{H}$, and waste valve, $M$, when
combined, arranged and connected substantially as set forth, so as combined, arranged and connected gubstantially as set forth, so as
to permit the waste valve to operate alternating with the main valve or remain inactive, at the option of the operator. Second, The described combination of pipe or barre, Ec , nozzle, F, guides, e, and casing, D; the said parts being construct-
ed, arranged and operated as set forth so that the hydrant may be
removed botily by unscrewing from above, and again replaced removed bodily by unscrewing from above, and again replaced,
without disturbance of the ground and without undue exposure of its

29,873.-M. A. Furbush and George Crompton, of Worcester, Mass., for an Improvement in Power Looms:
We claim connecting the two hand levers of the belt-shipper, one connected with one so as as move thenewith and provided with
shoulders on each side of the spring handle, and with bevel or in shoulders on each side of the spring hande, and withal bevel orrato-
ctined plane substantially as described, os as to enable the operato
to stop or start the loom by one motion from either side of the to stop or start the
frame. also claim the single lever under the breast beam, and passing through and working in a mortise in the side frame, substantially as
described, in combination with the trip lever and spring lever of the Bllijper, , 3nbatantially na described and for the purpose set forth., of one or more intermediate wheel or wheels, or equivalent thereof in combination with
29,874.-P. G. Gardiner, of New York City, for an Improvement in Cotton Presses:
mbination of toggle joints on a rod connected to the movable platen of a cotton press, and ope rating so as to move and supply alternately said rod and platen at
stated intervals, whether the motion of the platen be upwards or stated intervals, whether the motion of the platen be upwards or
downwards, in the manner and for the purpose, substantially as de-
scribed. Second, I claime the guide plate; M, provided with slots or guides,
and operating the ends of the toklch joints and of the pawls, in the
 operated br the lever, $Z$, acting on eccentric crooves,, $\mathcal{Y}$, attached $\mathbf{x}$
a wheel. W, in the manner and for the purpose specifice. Fourth, I claim the arrangement of the upper part, B', of the cot-
ton box, with its movable sides and ends, for the purpose and in the manner substantially as described.
Fifth, I claim the combination of double toggle joints, working in
reverse motion to eachother, on teeth or notches attached to a rod fast to the movable platen, in combination with a guiding plate ope-
rated by aroove cant wheel, and in combination with pawls; the
whole bein rated by a grooved can wheel, and in combination with pawls; the
whole being arranged and combined to work together in the mannel
and for the purpose, substantially as get fath and descibed
29,875.-R. J. Gatling, of Indianapolis, Ind., for an Improvement in Hemp Brakes:
I claim, first, The oscillating heaters, $B$ and $C$ (as shown in Figs. 1
and 2 ), when constructed arranged and operating in the mauner and
for the prite
 when arranged and constructed substantially in the manner and for the purpose set forth.
29.876.-J. R. Gilbert, of Starkville, Ga., and S. R.

Weston, of Dawson, Ga., for an Improvement in Cultivators:
We claim the arrangement of the hasdles, beams, hinged stand-
ards and hinged curved and notched braces, by which we are enabled
ards and hinged curved and notched braces, by which we are enable
to change the plow trom a dounle beam adjustable culturtarylow to
two single beam plows, substantally in the manner deec cibed.
29,877.-W. W. Golsan, of Autaugaville, Ala., for an Improvement in Cotton Cultivators:
I claim the arrangement of che cultivator point, L, and the centraes, h h, and the uplights, FF , substantially in in the laterally-acting
hanner and for
the purpose set forth.
29,878.-W. W. Golsan, of Autaugaville, Ala., for an Improvement in Seed planters:
I claim the combination of cam wheel, c, agitating wheel, $\mathbf{H}$, gipring. $e$, and slide, $d$; the whole being con
the manner and for the purpose described.
29,879.-A. J. Graham, of Portland, Oregon, for an Improvement in Locomotive Engines: I claim the arrangement of the yielding feet, F, and slides, E E , in
combination with the double cranks, $j j^{j}$ rode $k$, $k^{\prime}$, and central shan. $G$, as and for the purpose shown and described. and
I also claim the employment of the double.beveled collar, m, in
combination with the shaft, $G$, and sliding pulleys, $H$, $H$, as and for combination with the shaf, $G$, an
[Thisinvention consists in arranging on sliding cross-heads, which are connected by suitable rods and links to a common crank axle, a
series of yielding toes or foot-pieces, in such a manner that, by ro-
tating said axle, the foot-pieces are alternately drawn forward and pushed back on the ground, whereby a vehicle arranged in the prois propelled on the bround
80.-John Greacen, Jr., of New York City, for an

Improved Device for Discharging the Smoke, Cin-
ders, \&c., from Locomotive Engines:
I claim the combination with smoke pipes or tumoes, arranged to
conver the smoke from the front to the rear of the train colvey the smoke from the front to the rear of the train, of reversi-
ble funnel connections, constructed and operating substantially as the purposes set forth.
29, 881.-T. H. Green, of Fon du Lac, Wis., for an Improvement in Grain Elevators:
I claim the emplosment of the horizontally-revolving distributing spout, $G$, in combination with the bins, $J$, when the $\mu$ xis of rotation
of said spout is arranged beneath the discharging mouth of the ele vator, so that the grain may be conducted to any of the bins that are
within the radius of the circle described by the outer end of the within the radius of the circie described by the outer end of the
spout, $G$ all as shown and described. I also claim the combination of the revolving spout, $G$, shaft, $F$,
and index lever, H, with the elevating device, $B$, substantially as
shown and described. LThis invention
LThis invention consists in attaching to a grain elevator-head an that an attendant in the led and connected to an index arm orlever, that an attendant in the lower part of the storehouse or mill mas adjust said spout, and cause the grain carried up by the elevators to
be deposited in any of a series of bins, as circumstances may require be deposited in any of a series of bins, as circumstances may
or as may be desired for the pirpose of storage of the grain.] 29,882. -Joseph Harris, Jr., of Roxbury, Mass., for an Improvement in City Railroad Cars:
I claim the arrangement and construction of a car, when made in
the manner and for the purposes described.
29,883.-J. M. Hathaway, of New York City, for an Improvement in Augers:
I claim, first, The eccentrically-adjustable cutter, sliding on and
held by the dovetail groove and tenon, as described.
Second, I claim, in combination center to the auger, thus affording solid and sufficient metal upon which to form said tenon.
Third, I claim extending the spiral upon such zolid shaft the enson given.
Fourth. I claim (in combination) making the center screw or worm
removable, as described, tor the reason given. 29,884.-Homer Hecox, of Rutland, N. Y., for an Improvement in Sap Conductors.
I claim, as an improved article of manufacture, a metallic pap-
condrctirk tube, when made tapering in formand provided with a scribed.
IThis invention consists in constructing a sap-conductor or spile of a tapering metallic tube with a projection or nose on its upper side so that the same may be driven firmly into the tree and that the ap against the influence of the wind and keeping the bucket from tipping over.]
29,885. - M. W. House, of Cleveland, Ohio, for an Im provement in Harrows:
rclaim constructing a harrow of
the accompanying drawings, when the said partz are combined with each other substan tially in the manner set furtl.
29,886. -Michael Hauseman, of Huntington, Ind., for an Improvement in Corn-shellers:
I claim the jx
the handle, 1 and 2 , the hinge joint by which they are united,
 being constructed and arranged in the manner beffore described, and 28, 887.-Sidney Hudson, of Milford, Mich., for an Im provement in Self-acting Waste Gates for Milldams:
I claim the combination with the piroted gates, $\mathbf{B} \mathbf{C}$, of the ad-
ustable counterpiece, $G$, bent lever, $F$, rod, $E$, and connecting link Dhen all the parts are arranged and constructed to operate to
gether as and for the purpose shown and described.
29, 888.-J. J. Johnston. of Alleghany, Pa., for a De
vice for Teaching Children:
I claim the arrangement of the copy chamber, $b$, letter board, letter case, a, and hexagonal blocks, with the hetters of the alphabet,
purctuation joints and figures impressed on them; the whole being
aranged and conetructed in the manner described, and for the purarranged ant
pose set forth.
29,889.-W'm. S. Kimball, of Rochester, N. Y., for an
Improvement in Wine Presses:
I claim, first, The use of the , perforated elastic apron, $A$, in com-
ination with the rollers, $R^{\prime} R^{\prime \prime} R^{\prime \prime \prime}$, in the manner and for the purbination with the rollers, $R i R^{\prime}$, in the manner and tor the pur-
pose substantiall as described.
Second, I claim the use of the corded or enlarged edges of the apron, A, in combination with the grooved rollers (as shown in Fig.
4, the whole beeiug arranged and operating in the manner and for
the purpose substantially as set forth

29, 890.-J. W. Knapp, of Chester, N. Y., for an Im-
provement in Window-shutter Stands:
I claim the two posts with thin spikes, $b$ br, one nost being station-
ary and the other post jointed to a sliding piece, $E$, and prepared $b y$ an adjustable jointed piece, G; thewhole constructed substantially 29
29, 891.-Julius Koch, of South Adams, Mass., for an
Apparatus for Trimming Paper:

[This invention consists in the use of a pressure box, operated by a screw or its equivalent, and provided with a flap or adjustable all so arranged that the desired work may be very expeditionsly and perfectly performed.]
29,892.-D. R. Lightner, of Bucyrus, Ohio, for an Improved Spring Bedstead:
I claim the arrangement of springs, $\mathbf{C}$, batten, $\mathbf{E}$, side rail, $F$, and
elevating rack; the whole resting on the plank, $A$, across the elevating rack;
of the bedstead.
29,893.-Daniel Lombard, of Boston, Mass., for an
Improvement in Machines for Polishing Rice:
I claim the combination of the surf facer, a b bnd $c$, with stirrers, $f$,
When all of these are covered wifh buckskin or other eqivivalent
yielding material, and are of the form and relative arrangenent de. When an or material, and are of the form and and relative arrangequentent de-
fieribed, operating together as specified to polish the grains of rice.
29,894.-Daniel Lombard, of Boston, Mass., for an
Improvement in Machines for Scouring Rice:
I claim the described arrangement and combination of etirrers and
stationary surfaces, of the form described, acting together in the
specified manner.

29, 895.--Henry Marcellus, of Amsterdam, N. Y., for I an Jmprovement in Mowing Machines:
 for the purpose of raising, lowering and holding up both ends of the
finger beam, substantially as set forth. Second. In a mowing machine whose main frame and tinger bearu
are rigidy connected, and are free to vibrate up and down trans versely to and parallel with the path of the machme, supporting the
drivers seat on the axle of the drivink wheel in such manner that it will be unaffected by the lateral vibratory movements of the mais
frame or the turning of the main axle, substantially as described.
29,896.-G. B. Markham, of Mead's Mills, Mich., for an Improvement in Self-acting Floodgates:
I claim the arrangement of the fianges, $b$, and adjustable bar, $a$,
substantially as specified, so that the size of the discharge opening can be regulated at pleasure.
[The object of this invention is to arrange the gates especially in mall streams, which are liable to swell considerably from a heavs are self, and to calse a break in the dam sucha man that they mark, and that they let the water out before it does any damage.]
29,897. -W. D. Mason, of Jarratt's Depot, Va., for an
Improvement in Sowing Machines:
I claim the combination of the rotating screws, $F$, with the hop-
pers, $D E$ when the latter are divided partments, $c$, and chambers, $d$, substantially as and for the purpose shecified.
I ffirther claim, in connection with the hoppers, D E, the rotating
fan, $L$, and inclined board, $M$, as and for the purposes set forth. [This invention consists in the employment or use of a rotating manure from the hopper.] 29,898.-T. J. Mayall, of Roxbury, Mass., for an Im provement in the Manufacture of Flexible Gas Tubes:
In the manufacture of fiexible tubes and other articles which are
used for the purpose of conducting or retaining illuminati ng gas or ther gaseo us fluids, I claim the ise of a vulcanizable so ft india-
ubber compound. containing gum shellac as an essential ingredient.
29,899.-Wm. McAllister, of Gerry, N. Y., for an Improvement in Pressing Cheese
I claim, first, The application and use of the crevice hoop, Fig. 1, Second, I claim the application and use of the head clothes speci-
ied, the same being made and used as and for the purposes de fied, the
scribed.
29,900.-John McKinney, of Lansing, Mich., for an Improvement in Railroad Car Couplings:
I claim giving such a shape to the head of the spring-actuated
haft, $P$, and such a degree of strength to its spring that the fathead of the link, L, when placed within the butfer frame, will be so closel
embraced between the said spring-actuated head and the draug pin as to retain said link in a horizontal position when unemployed, When the head of forthe spring-acturted shaft, $\mathbf{P}$, and the draught pin, I, bear the described relation to each other and the buffer frame,
I also claim the vertical tube, G, which rises from the draumht pin
nperture in the upper plate of the buffer frame, and serves the pur-

29,901.-Albert Moffet, of Bristol. Ohio, for an Im-
proved Machine for Marking Waving Patterns:
I clain the lever, $M$, sliding bar, $O$, and arm, $S$, arranged and


29,902.-J. A. Naylor, of Rahway, N. J., for an Improvement in Extension Carriages:
I claim the arrangement of the draw front, B, folding seat, $G$, and
seat, $F$, substantially as described and for the purposes set forth. 29,903.-Stewart Neill, of Chillicothe, Ill., for an Improvement in Harrows:
I claim the combination and arrangement of the teeth, E. toothed
roller, $C$, and markers, $D$, substantially in the manner specified and
29,904.-W. T. Opie, of Scarboro', Ga., for an Improvement in Cotton Presses:
I clain the combination of togrese levers applied to the follower,
and having friction rollers at their joints, as set forth when these levers are acted upon by the arm, I, yitwinp against their rollers and extending them as
operated by arm, J, conn
scribed aad represented.
[This invention consists in applying power to the follower, which is moved by means of a peculiar arrangement of toggle-joints, with riction rollers applied at their knees and joints, which are acted force as rapidly as possible, the motion being given to the parts by hors as rapidly as possible, the motion being given to the $p$
29,905.-E. W. Ormsbee, of Montpelier, Vt., for an
Improvement in Apparatuses for Collecting Sap from Trees:
I claim the cover, 1 , the ledges, 9 2, the spring, 3 , hooked or bent
at the ends, as described, and the points, 4 4, when the whole are
combined and arranged with each other in the manner described combined and arranged w.
and for the purpose stated.
29,906.-John Osborn, of Mount Carmel, Conn., for an Improvement in Aqueducts:
I claim, first, The arrangement of the valve chest,
$\mathbf{e}^{\prime}$, in combination with the reservoir,
$\mathbf{E}$, with valves, F, constructed and operating substantially as and forthe purpose set forth. The arrangement of the swinging box, $G$ in combination
Sith the valve stem, $f$, valves, $e^{\prime}$, and reservoirs, $A$ B , constructed
 Third, The arrangement of the float, 1 , lever, m, valve, $k$, aper-
ture, n, and valve, oin combination with the two clambers $j, ~$ of
the box, $G$, co nstructed and operating substantially as and for the pupposes descr ibed.
Fourth, The combination with the box, G, reservoirs, A B, and
pipe, F of the fau cets, M and O, operating substantially as and for the purposes set forth.
CThe object of this invention is to arrange an aqueduct in such a manner that, by a simple and ingenious device, the head of the water passing through the aqueduct can be changed and the supply ,99.]
29,907.-A. R. Park, of Columbia, Texas, for an 1 m -

> provement in Seeding Machines:

I claim a rotary seed-distributor, composed of drums, $\mathbf{c}$ c, and longl-
tudinal untrul strins, e e, for dlatributine different kinds of seed in combination with the reciprocating yielding apron, $D$, and a seed [This invention relates to a machine for sowing
duills or-in hills, and for sowing cotton, corn and an other kinds in
seed. It consists in arranging in the bottom of a seed hopper, which if furnished witha reciprocating yielding slide or agitator for the seed in the hopper, a shaft having cylindrical heads on each end that are provided in the seed cells, which heads are conn cted together pry stripa of metal ranning spirally around the shaft that it into the ground.]
29,908.-Homer Parmalee, of Philadelphia, Pa., for an Improvement in Molding Metal Pipes:
I claim forming molds and cores for the casting of cylindrical objects of metal by means of the pipe, $D$, with its flange, $e$, when the
said piese and flange are cansed to revove in a chamber arond siny
deared object to rise as the mold or corv is being formed and to part, by its weight, the desired soliditv and' nniformity to the molj
or core, as set forth.

29,909.-E. G. Pomeroy, of New York City, for an Improved Method of Converting Iron into Steel: I claim the conversion of iron into steel by its treatment in the
molten etate with the compound of potsenh or other alkaif, carbonate of lime, oxyd of manganese and charcosl, substantia ly in the man
ner specified.
[This invention consists in a very simple and cheap mode of conrerting iron into steel.]
29,910.-Milo Peck and Charles Peck, of New Haven, Conn., for an Improvement in Drop Presses:
We claim the ma king and constructing of puppet heads to drop
and other presses with cylindrical shanks, and fitting the same to anvils between raised le
29,911. - August Pernot, of Chilton, Wis., for an Im proved Machine for Sawing Shingles:
\% chaim the arrangement of the reciprocating frames, $B \mathbf{B}$, provided K, When used in connectiou with rocking tables, H H, the saw, J,
plate , the cla mp, $c$ and the bar, ; the whole being constructed
combined and operating in the manner and for the purpoes specified
29,912.-S. L. Pionnier, of New York City, for an Improvement in Shipbuilding
tact, in combination with the wire or metallic timbers in close con-and-aft and athwart shipe, substantially as and for the purpose
ahown and described.
[The object of this invention is to increase the strength and the safety of seagoing vessels, and it consists in putting the ribs or frame of the vessel in close proximity, and in binding them together by is technically called "room and space," or the distance between the frames.]
29,913. - B. S. Pringle, of Barnesville, Ga., for an Im proved Bedstead:
I claim attaching the four feet to their respective legs by a rack
and pawl in the manuer described, and pivoting these legs to the
rails of the bedstead frame, as and for the
CThisinvention conaists in nsing fonr lega, each having two feet one being placed at the head, one at the foot and one at each sid ofthe bedstead frame, which legs arepivoted to the raile, and the heed and foot legs are so constracted that they maybe lengthened or shortened, and fired at any desired point of adjustment, to raise

29,914.-J. W. Ramsay and Daniel Wilson, of Grafton, Va., for an Improvement in Portable India-rubber Bathing Tubs:
We claim au india-rabber bathing tub, provided with donble sides, in connection fith the screw valve, a, or its equit
arranged substantially as and for the purpose set forth.
29,915.-G. G. Ray, of Boston, Mass., for an Improved Steam Reed Instrument:
I claim the chamber, $D$, communicating with a steam boiler, and
furnished with one or more orifices or slote, $i$, and corresponding
reeds, $m$, subetantially more described, for the purpose ppecified.
29,916.-John Revere, of Boston, Mass., for an Improvement in Sheathing Ships, \&c.
I claim the application to the inner surface of metallic sheathing of a ship, or orner vessel, and with respect to the bottom of the ves-
sel, as described and for the purpoee set forth, of an ins lating ma-
Itrial or comporim, in fombination with such an application of such an
I als
29,917.-Louis Schneider and J. A. Montgomery, of Williamsport, Pa., for an Improvement in Selfacting Draw-bridges:
We claim the self-acting drawbridge described, capable of being
turned in either direction by a peseing veseel and elosing itself Fl : a constan
set forth.
29,918.-G. C. Selfridge, of North Greenfield, N. Y., for an Improvement in Pumps
I claim a pump constituted of an upper and lower chamber, the
upper chamber being of one-half the area of the 10 wer one in diann
eter, placed one above the other, having a solid piston moving in the
upper and a valved piston moving in the lower chamber, both valve seat and its valves below the discharge orifice lying aetween vaive beat and the valves below the discharge orifice living between
the pistons, the whole arsangod and working together in the manner

29,919.-Thos. Sheehan, of Dunkirk, N. Y ${ }_{0}$, for an Improved Method of Converting Iron with'Steel: I claim, first, The liquid composition consisting of the ingrediente
used, compounded in or in about the proportions specified and de-
scribed. The compound for steelifying wrought iron made of the second,
liquid com
set forth.
29,920.-H. C. Smith, of Clarksville, Ohio, for an Im provement in Mortising Machines:
I claim the pitman, $H$ e, link, I, and pin, $d_{1}$ opersting in connec
tion with a re procating rotary cutter head, $F$, ${ }^{\text {is }}$ manner substan
tially as and for tially as and for the porposes set forth
29,921.-W. S. Smith, of Trenton, N. J., for an Im provement in Driving Piles by Atmospheric Pres sure:
I claim the supplementaris air-lock, $D_{\text {a }}$ applied substantially as de-
scribed, in combination with the main air-lock, and serving the pur-
pose specified.
29, 922.-J. M. Spencer, of Enfield, Maine, for an Im proved Hand-mowing Machine:


29,923.-H. D. Stover, of New York City, for an Im proved Planing Machine:
I claim, first, Con structing that partof the dogslos apparatus. Ep
 given, both to press the dogs forward intothe lumber and bold them
securely down to the platen by the turning of a single screw, essentially in the manner deecribed.
Eecond The combination of the downward drawn guide bar, $C 7$,
with the doge $F^{\prime}$, crobsbar, $L^{\circ}$, and revolving nut, $G^{\circ}$, bubstantilly n the manner and for the purpose set forth, face and parallel to the axis of the cutter head ; the cutting edgee
being in the eurface of a cylinderwhose axis is co-incident with the
axis of motion, bo as to impart a drawing stroke, subetantially as set Fonrth, The combination of the cutting cvlinder, U2, formed with recesses rr and pressure edge, v, with the peculiarly-constructed
catterr, $V$, and the devices by which they are adusted napon the

 ering the rolls to be nsed, its feed is connected and the platen feed
disconnected; and br the raising of tbe rolls, the feed is connected
with the platen, substantially as set forth. With the platen, substantially as set forth.
sixth, Making the platen in two parta, $\mathbf{B}$ and $\mathbf{C}$, with a ball, $\mathbf{F}$,
betwin by strape, n, or otherwibe, in any position, so that a piece may be
planed level and paralleel in thicknem, or tapering, as set forth. Seventh, So constructing the feed roll Doxee, $R^{\prime}$, tbat they carry

 and on a line with top of the lower feed roll, 02 , with or withou Niece, A, to wholly sustain and guide the movable platem, $\mathbf{B}$ and orin conne otion with tracks, $N$, so as to receive the weight of the
timber on the rollerg BA, and its guidance from the track for the
easy movement of platen when carrying loads, as set forth.
Te nth, I also oc am so con

 and obviate the shockanddestruction of parts consequent on starting
 rolls, $0^{\prime}$ and $0^{2}$, that a cutter will automatically find and correctly
match the entire length of each edge of a board or piece regardees described.
Twelfth, 1 also claim forming mouth pieces or openings, between the teeth of of the solid doonging rackg, B10, to prevent
shavings and chipg logging and cogging the iein, all substantially as
described and for the purposes fully set forth.
29,924.-J. C. Teague, of Center Fill, Miss., for an
Improvement in Cotton Scrapers:
1 claim the arrangement and combination of the ast iron box, $G$
with inclined bottom and balanced sidee, bar, $\mathbf{C}$, for attaching

29,925.-W. D. Thomas, of Morristown, Vt., for an Improvement in Furnaces
I claim the arrangement of the side flies and dampers relatively
the pan, as and for the purpose set forth. 29,926.-W. H. Towers, of New York City, for an Improved Broom:
I claim the broom constructed of broom-corn nnd strips of cane or
reeds, snbstantially as deacribed, as a new article of manufacture. 29, 927.-N. K. Wade and Joseph Kaye, of Pittsburgh, Pa., for an Improvement in Car Wheels:
We claim the use of arms or spokes of wrought inon, or other flexi-
ble material, of single or donble curvature, and so placed in the hab and rim as to affiord a lateral brace, substantiallyas set forth and
29,928. Maximilian Wappich, of Sacramento, Cal.,
for an Improvement in Cotton Presses:
I claim the ratohet trames, if, and pawl 8,6 , , acted on by the rol-
ler, $e$, and futed wheel, $a$, as and for the purposes specified.
29,929.-E. P. Whitney, of Westfield, N. Y., for an Improvement in Locks:
I claim the constraction of the latch, C, with double projections,
d aud $f$, bo that the lock may be used as a right or left hand lock d and f, bo that the lock may be used as a right or left hand lock,
as desired, by merely torning the latch, 0 ; all as shown and de-
scribed
[The object of this invention is to render locks and latches capable of being reversed so that one and the same lock or latch may, without being inverted, be applied to a right or left hand door.]
29,930.-D. H. Whittem ore, of Lynchburg, Va., for
an Improvement in Hay and Straw Cutters:
claim, first, So arranging the feed teeth, $M \mathrm{M}$, dc., upon a revolving cylinder or fla nges, that asid cylinder or flanges will, while
revolving with the half of said teeth, both draw the feed forward and in passing by a
Second, I claina combining with said cy linder, the spring board,
G, in the manner and for the purpose subsantially as set forth. G, in the manner and for the purpose ga bstantially as set forth,
Third, I claim combining with said cylinder and sp ing board, the
stationary knife, O, bubetsntially as described. 29,931.-E. S. Wicklin and J. D. Weaver, of Carlin ville, Ill., for an Improvement in Carriages:
I claim a buggy seat, divided or not, hinged to the back end of the
floor of the bugy and farnished with atepping boards on ita under side, substantially as set forth, so as to serye the two-fold purpo seo of
a seatandas steps by which to enter or leave the buggy from be-

29,932.-C. A. Wilson, of Cincinnati, Ohio, for an
Improvement in Steam-heating Apparatas:
pipe, A, and ite upper and free end dizcharging into the atmospher through an aperture futrleed by an antennat! valve; the whole
being constrncted sne operating substantially as and for the pur-

99,933.-David .Wooster, of Scymour, Conn., for an
Improvement in Lightning Rods:
I claim, first, Firmly asenipg engether the ends of the rod, $A$, and She sleeve, B, by means of the grooves, $\mathbf{c} c$, as described.
Second, 1 claim the treble jointed piece, $F$, when ma e out of
heet metal substantially as deccribed.
29,934.-G. W. N. Yost, of Yellow Springs, Ohio, for an Improvement in Cultivators:
I claim the arrangement of eockete $b$, with beam, $A$, and atand-
ards, a-the whole being constructed as and for the purpose de99.

9,935.-J. F. Hall, of Bangor, Maine, assignor to himself and G. L. Kelty, of New York City, for an
Improved Curtain Fixtüre

and is acted upon by a apring to push to out, thas kecping one of the
fanges always in contact with the end of the roll, as set fonth. [This invention consists in forming the pulley spool around which he cord that regulates the movement of the cartain roller is wound two parts, the stem or one playing through a hole in the center of e other ; thisallows an end play to the epool.]
29,936.-Justus Ask (assignor to himselt and J. H
Case), of Lyons, N. Y., for an Improvement in the Construction of Dental Chairs:
I claim the combination of the fixed Bcrew, $F$, nnt wheel, $G$, and
is appurtenances, movable seat, $D$, and frama $A$, arranged and ond
operating substantially in the mannerand for the purpoeses shown Ind described.
I also claim the arched supporting frame, A, with the eeat frame
B, hinged thereto, in combination with the adjusting lever, J, and , hiling, arranged and operating bubstantially as and for the purpose Bail k, arra
I also cla
I aiso claim the supplementary seat arms, B , substantially as and or the purpose deacribed.
I also claim the bellows.formed diaphragm, $R$, in combination with
he movable seat and frame, $B$, substantially as set forth. movable seat and frame, $B$, substantially as set forth.
9,937.-A. F. Hines_(assignor to himself and B. A Kidder), of Washington, D. C., for an Improvement in Seed Planters:
I claim the arrangement of two reciprocating valve elides, $D F$, the s rfaces of which are smooth and without recessesor perforn,
tions, incombination with an arm, E , lever, L , and spout, B ; one alve working through an aperture, $C$ in the side of the spout, while
he other valve. F, works in contact with he under face of the 29,938.-J. M. Long (assignor to himself, Peter Black and R. Alstatter), of Hamilton, Ohio, for an Improvement in Harvesters:
onstructed, arranged and operating substantialily an
devfribert
29,939.-F. A. Pratt (assignor to himself and G. S Lincoln \& Co.), of Hartford, Conn., for an Improvement in Device for Stopping and Changing Motion:
I claim the combination of the levers or clampss, e?. dibk or collar,
substantially as and for the purpose described. substantially as an for the purpose described.
Second, 1 claim the application of a wedge collin, or its mechani-
ai equivalent for the purpose of operating the said levers or clamps,

29,940.-J. H. Reed, of Penn Township, Pa., assignor to himself and L. J. Crans, of Clearfield Borough Pa., for an Improvement in Machines for Cleaning Buckwheat, \&c.
I claim one cylinder revolving in another, the inneror revolving rain from the place of feeding to the place of dischargeat ol other
hall pass through a regularly diminiehing space and thus be scourhall pabs through a regularly din
ed or cleaned, as above set forth.
29,941.-August Schmidt (assignor to himself, Charles Schmidt, Edward Schmidt and Herman Schmidt) of New York City, for an Improvement in the of New York City, for an Improvement in the
Mode of Making Gas from Wood: uccessive processes set forth.
9,942.-George Williamson (assignor to L. S. Goble and H. E. Richards), of Newark, N. J., for an Improved Machine for Chamfering Veneers:
I clatim the combination of the adjustable ways, B B, the frame,
spring clamp, D, and spring, $m$, Bubstantially in the manner and
r the purpose
described.

## RE-ISSUES

M. A. Dietz, of Brooklyn, N. Y., for an Improvement in Lamps. Patented Sept. 8, 1858 :
I claim an air chamber in combination with the chamber tormed
ecribed. concavity of the deflector of a lamp top, substantially as de
I alio claim the combination of an air chamber for supplying air
to theinterior of the cone with openings for the admisrion of air on
to theinterior of the cone with openings for the admiskion of air on
the outside of the cone, betwenn the latter and the inside of the
chimney substantinily as set forth.
I alsoo ciam forming a communication between the oil chamber
and the cone chamber, o, by means of openings in the shell of the and the cone chamber, $o$, by means of openings in the shell of the
lamp top, substantially as described for the purpose set forth.
E. W. Goodale, of Clinton, Mass., for a Machine for Making Paper Bags: Patented May 29, 1855:
I claim, firtt, Cutting off the paper from a continuous roll in a completed, one side of the mouth is cansed, hy the form of saidcut
 Secoun, Giving the blades of the side sheare, J J J J J', a curved
ngular or irregular form near the point, for the purpose of cuttin

 shafts or pivots, $j$ j, prrpendicular to their faces, for the purpose of
allowing them to cnt plighty acroes the fixed blades by alight lateral movement which they receive rimultaneouel by with the
movement usually given to sheare, bnbstantially as deecribed Fourth, The intermittently rotating folderarranged and operating
su bstantially as described, to receive the bag pieces from the feed su bstantially as described, to receive the bag pieces from the feed
apron, L, after the cuting and peting operations, and to Bupport or partly support them until the creasers come into their operative
rooition, and aftewards to fold them over the creasers.
Firth, The combination of the side laprere, $\mathbf{N} \mathbf{N}$, and the folding Fisth, The combination of the side lappers, $N$ N, and the folding
stands d, dubtantially as deecribed, that is to san, the gtands
being go placed as to support the bag piece and the creazers during teing so placed as to support the bag piece and the and lapping operation, and to allow the folder to pose
the folding ing stands in Buch a manner no to be cepsable of fanling over those
creaserg which are supported by the folding etands. Thig I claim
irregective of any maner of oneratiur the leqper and whether

tionary. The toothed roller, T, hung in a frame, T', from the axle
sixth,
of one the pressing and delivery roller, and operating anbstan-
tially as described, to commence the removal of the bags from the ian ss described, to commence the removal of the bags from the
iareasers. Seventh, The general arrangement and comblna tiou of the several
working parts of the machine eubstantially as deacribed. [This re-issue embraces an important claim in the man facture of bage.
A. M. Mace, of Springfield, Mass., for an Improvement in Vapor Lamps. Patented June 22, 1858:
I claim, first, Combining the cap or heat retainer, $\mathbf{I H}$, with vapor Boarranged over the ame wo to operate in the manner et forth.
Second. I Ilso claim the combination of the $h$ at tetainer, H , and
vaporizing tube, connected gubatantimlt. as deetibech, with the levated reser oir; the whole surranged and opersting with reapec



