## RECENT AMERICAN PATENTS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week: the claims may be found in the official list :---

Photographic Picture Holder.-This invention consists in a revolving or movable cylinder or prisma the surface of which is divided off into a large number of parts, each capable of holding a photographic or other picture of that size generally used for photographic picture cards or of any other desirable size, in combination with a movable or stationary case surrounding said movable cylinder and provided with windows corresponding severally in size and position to the several tiers of panels in the cylinder in such a manner that, by revolving or moving said cylinder or case, several rows of pictures, one after the other, can be brought opposite the observer, and a large number of pictures can thus be exhibited in a simple and convenient way. James Bucket, of Harlem, N. Y., is the inventor.

Improvement in Fifes and Flutes- The object of this invention is to produce a fife or flute which is so constructed that it serves to play on two or more keys. This object is effected by the application of a revolving finger piece with one or more sets of finger holes, in combination with a long slot extending through the main barrel, in such a manner that by turning the finger piece different sets of finger holes can be brought into action, and the fife or flute is lengthened or shortened for different keys. The length of the barrel is still further adjusted by the use of an adjustable mouth-piece, which is made to slide up or down on the main barrel, said barrel being provided with an oblong hole, so that, by sliding the mouthpiece up or down, the communication between its mouth-hole and the interior of the barrel is not interrupted. The plug which stops up the end of the barrel close over the mouth hole, is connected to the sliding mouth-piece, so that by adjusting said mouthpiece the plug is also adjusted. A. H. Stratton, 31 Maiden Lanc, New York, is the inventor.

## Pump for Deep Wells.

We call attention to the pump patented by Kings ton Goddard, of Philadelphia, Pa., on the 11th of April, 1865. This pump is said to be very efficient, and appears to utilize, in the best manner possible, a given weight of metal in the production of a pump rod for deep wells. The piston or pump rod is tubular, and is lightened by the removal of portions, leaving openings, which do not materially detract from its efficiency in other respects.

How IS IT DONE ?- A foreign exchange mentions a magic toy figure of a man which, when on the ground, immediately commences dancing in perfect time to any tune, astonishing all present, and defying detection. It is sold at 6 pence and 1 shilling, English money. They have also a donkey which dances on a similar principle. Inventors on the watch for novelties for the holidays should look into this subject.

## TO OUR READERS.

PATENT CLAIMS .- Persons desiring the claim of any in vention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the pat. entee and date of patent, when known, and enclosing \$1 as fe copying. We can also furnish a sketch of any patented made issued since 1853, to accompany the claim, on receipt of \$2. Address M.UNN & CO., Patent Solicitors, No. 37 Park Row, New York.

RECEIPTS .- When money is paid at the office for sub scriptions, a receipt for it will always be given ; but when subscribers remit their money by mail, they may consider the arrival of the trst paper a *home fide* acknowledgement of our recept on of their

MODELS are required to accompany applications for Pat ants under the new law, the same as formerly, excepton design pat ents, when two good drawings are all that are required to accompany the petition, specification and oath, except the Govern nent fee.

INVARIABLE RULE. - It is an established rule of this office to stop sending the paper when the time for which it was pre-paid has expired

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VOLUME IV., VII. AND VOLUME XI., (NEW SE-RIES) complete (bound) may be had at this office and from period cal dealers. Price, bound, \$3 00 per volume, by mail, \$3 75 white cludes postage. Every mechanic, inventor or artisan in the United States should have a complete set of this publication for reference Subscribers should not fail to preserve their numbers for binding, VOLS. I, JI., JII., V., VI., VIII., IX. and X., are out of print and



ISSUED FROM THE UNITED STATES PATENT-OFFICE FOR THE WEEK ENDING MAY 2, 1865.

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ar Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required and much other in formation useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

Churn.-Charles T. Anderson, Clarksburg, Md. First, I claim the combination of the rod, C, arm, D, link, G, and handle, H, the parts being so arranged that the motion of the had dle will be transmitted to both the bellows and dasher, substantial y as set forth. Second, In a churn of the description herein given, I claim the pin, g, and perforations, d, employed as and for the object specified.

47,508.-Letter Envelope.-James G. Arnold, Worces

ter, Mass.: I claim cutting envelope blanks, in the manner and for the pur loses substantially as set forth and described. —Sick Chair.—Charles H. Bagley, Waltham, 47.509.

A 3003-BICH CHART CARACTER AND A STREAM OF Tola

[This invention relates to a new and improved sick chair, designed for bed-rooms, and constructed and arranged in such a manner that tor electrooms, and constructed and arranged in such a manner that all unpleasant odor or smell is effectually prevented from escaping therefrom, either while the device is in use or when closed, and the chamber also prevented from emitting any junpleasant odor while eing removed from the chair.]

47,510. -Manufacture of Steel.-Julius Baur, Brooklyn

N. Y.: I claim the above-described process, consisting of combining alum-num with iron in the manufacture of steel, substantially as set

47,511.-Evaporating Pan.-George Bez, Mokena, Ill. I claim the combination of fire and steam pans and pipes, as herein set forth and shown, for evaporating sirups.
 47,512.—Sofa Bedstead.—Elijah Brady, New York City: I claim the combination and arrangement of a sofa with the bed and drawer, substantially as described, for the purposes specified.

47.513.—Shoe Lacing.—Mellen Bray, Boston, Mass.: I claim the employment of staples, arranged in opposite pairs, each pair overlapping or interlocking, in combination with a cord, string or wire, or other such flexible or non-flexible locking device. 47,514.—Corn-planter.—Joseph T. Bryan, Lebanon, Ind.:

Ind.: I claim, First, The arrangement of the boxes, H H, with their slides, I I, and apetures, d d, the cross pieces, b b, bar, J, lever, K, and tubes in front-showel-posts, P P, in combination with the plows, Q Q Q F, and set piece, P, for hilling. Second, The attachment of the rols, K R, to the machine, for the purpose of plowing and blanting corn.

47,515.

purpose of plowing and bianting corn. 47,515.—Photographic Picture-holder.—James Buckett, Harlem, N. Y.: I claim, First, The movable cylinder or prism, A, or i's equiva-lent, containing a series of panels, b, in combination with a mova-ble or stationary case, B, constructed and operating substantially as and for the purpose set forth. Second, The bay windows applied to the case, B, in the manner and for the purpose substantially as described.

47,516. —Thomas Byrne

and for the purpose substantially as described.
47,516.—Machine for Printing Hats.—Thomas Byrne and Thomas Henry, New York City : We claim the employment or use of the conical printing roller. F in combination with a suitable pattern roller, B, of any desirable form or shape, and with a mechanism for supplying color, construct ed and operating substantially as and for the purpose set forth.

This invention consists in the employment or use of a conica printing roller, in combination with a suitable pattern roller, to which color is supplied by an endless apron or other mechanism, in such a manner that hats and other articles secured to the conical printing roller, and revolved with it, are brought in contact pattern rollers, and continuous stripes or other designs can be pro duced on said hats or other material, with little loss of time.]

uuceu on said bats or other material, with little loss of time.] 47,517.—Picker Motion for Looms.—John Cady, Staf-fordsville, Conn.: First, I claim the stop, L. constructed and fastened to the bed, H, in the manner substantially as above shown. Second, I also claim making the bed, H, of a concave form, by means of adjustable ends or inclined planes, substantially as de-scribed. Third, I also claim the mode substantially as above described.

rd. I also claim the mode substantially as above described of ching the picker staff and its strap to each other, and to the attach

Fourth, I also claim forming longitudinal grooves,  $o_i$  inclining in he directions shown on the periphery of the part,  $q_i$  of the box,  $Q_i$ or the purpose of lubricating its axis, substantially as shown. Firth, I also claim the notched franch.  $M_i$  of the part,  $q_i$  of the box, in combination with the key,  $f_i$  substantially as above de-cribed.

icribed. Sixth, I also claim arranging the slot, g, in the bed, H, which re-icrites the key. f, so that the box and its axis can be lubricated from bove the said bed, substantially as described. (This invention consists in a novel mode of constructing and op-rating the devices which guide the motions of the picker staff.)

-Seeding Machine.-Cyrus C. Carter, Exeter, 47,518 ni.

III.: I claim, First, The adjustable tubes. C, flited in the tarrining axle, A, and provided with the funnel. G, in combination with the seed-box, E, provided with the reciprocating slide, H, having the pendant plates, i, attached, and the perforated plates, g, h all arranged to op-erate as set forth. Second, The combination of the adjustable tubes, C, turning axle, A, seed-box, E. provided with the slides, f g h, the scattering board, M, and the spring lever, K, and notched bar, L, all arranged sub-stantially as set forth.

This invention relates to a new and improved machine for sowing

seed broadcast and in drills, and it consists in a novel arrangement of parts, whereby it is believed many advantages are obtained over the ordinary machines in use.] 47,519

.-Horse Rake.-P. S. Carver, Honeoye Falls, Y.: m inclosing the pawls, H I, in the groove, b, of the joint rim, N. I clain

D, by means of the strap, G, in such a manner as to prevent struction, said strap also serving to form the joint and retain parts together, and used in connection with a single handle, E, whole arranged, combined and operating substantially as and the purpose herein set forth.

the purpose herein set forth. 47,520.—Coupling for Thills.—E. D. Clapp, Auburn. N.Y.: I claim the thill iron, constructed in two parts, and with conical perforated bearings, the said two parts being pivoted together and made to overlap one another under the thill, in combination with the clip iron, constructed and arranged as described, all operating in the manner and for the purpose set forth.

47,521.-Boot and Shoe.- George P. Clark, Brooklyn,

N. Y.: I claim inserting within or attaching to the sole and heel of a boot or shoe, or in and to any desired portion of the same, a series of elastic studs or projections, made of any suitable flexible and elastic material, and of any desired number, size and shape, substantially as described and for the purposes specified. [This invention consists in fastening within the sole or treading

surface of a boot or shoe, a series of projecting elastic india-rubber or gutta-percha studs, the principal object of which is to give an ic, light and soft-treading surface there: o, as well as to keep the feet warm and dry.l

1000 Normal States and States a

47,523.-Ox Yoke.-W. R. Close, Bangor, Maine : l claim my improved yoke-ring adjusing mechanism, as con-structed of the supporting saddle. F the vibrating hanger, C, its catch block, b, its confining screw and not tor nuts, and the curred rack, D, arranged together and applied to the yoke, in manner and so as to operate therewith, substantially as and for the purpose specified.

47,524. —Awning and Reflector.—Jos. Cordnan, Brook-lyn, N. Y.: I claim the combined awning and reflector, constructed and ap-plied substantially as specified.

47,525 .- Chimney Cap.-George W. Demond, Boston, Mass

Mass.: I claim combining with the vanes, e, the blades, f, extending down ato the cylinder, and baving open spaces between their inner redges, substantially as hercin set forth.

47,526. Paper Fastencr. Z. W. Denham, Washington, D. C.:

I claim the fastener, A B C, substantially in the manner and for e purposes described

the purposes described by distinuiting in the manner and for it,527.—Grinding and Polishing Metals.—Jas. Dodge, Waterford, N. Y.: First, I claim the method of and machinery apparatus for grind-ing and polishing spindles, tools, filed blanks and o her regular or irregular-shaped articles, substantially as herein described; that is to say, by the employment of two revolving grindstones or polishing wheels, in combination with a meclanism for moving, in accord-ance with a patten, the said stones or wheels, or either of them, while wheels, in combination with a meclanism for moving, in accord-ance with a patten, the said stones or wheels, or either of them, while second. For grinding and polishing round articles, I claim, in combination with the above causing the said articles, to revolve in contact with the guide stone or polishing wheels, substantially as set forth.

47,528.—Lock Joint for Railroads.—Aaron Douglass, Paterson, N. J.: I claim the combination of the three laps, A B C, two formed of portions of the base and head of the rail, and one of a portion of the neck thereo, by dividing the rail in vertical and horizontal plains, and offsetting the neck in a lateral direction between the said borizontal planes, -ubstantially in the form and manner herein

47,529.—Kerosene Stove.--Wm. H. Elliot, Plattsburgh,

N. Y.: First, I claim so constructing a lamp with its connecting piece, g, and the lower plate of the stove, that the connection between the lamp and stove may be made by sliding the lamp under the stove substantially as described. Second, Joining the several rings of said connecting piece togeth-re substantially as represented at, g, for the purpose set forth.

er substantially är represented at, g, for the purpose set forth. 47,530.—Oil Pump.—Wm. H. Elliot, Plattsburgh, N. Y.: First, I claim the main pump, b, applied to the elevation of oil from the well, and the auxiliary pumps, g, applied to the exhaustion of gas or air from a higher position in said well cooperating sub-stantially as described. Second, The auxili y pumps, p, arranged in relation to the fore-going substantially as shown and described. Third, A suction or gas pump, g, and gas separator, f, the one seed-beg or packing, substantially as described. Fourth, A reversible suction and force gas pump, g, and lifting pump, b, so arranged in relation to the seed-bag or packing and to the surface of the earth substantially as set forth. 47 531 —Grading Scrapers — Charles Evans and Wm.

47,531.—Grading Scrapers.—Charles Evans and Wm. C. Bartlett, Morton, Ill.:

We claim the revolving straper, G, in combination with the sta-tionary mounted frame, A, and lever, E, all arranged substantially as and for the purpose set forth. We further claim the lever, J, in connection with the whcel, H, or their equivalents, for the purpose specified.

47,532

17,532.—Manufacture of Boxes, Packages, Etc.—H. Everett, Philadelphia, Pa.: I claim the bent strip. D, applied to the formation of the joints of boxes, packages or other vessels, in the manner described, for the boxpose specified.

47,533. -FanningMill.-Abram Fanckboner, Schoolcraft,

47,533.—Fanning Mill.—A Diam Fancescore, Mich.: I claum, First, The arrangement in relation to each other above described of the double screen, B, the inclined board, P. and the divisions, F and G. of the receiving box, E, when the parts are so constructed as to operate in conjunction with each other as herein set forth. Second, The construction and arrangement of the receiving box, E, substantially as and for the purpose set forth.

A 1531.—Cultivator Plow.—Jas. R. Finley, Delphi, Ind.: I claim the equal or symmetrical mold boards, when said parts form a configuration of the share, and have the peculiar form and configuration, as set forth and described.

47,635.—Heat Radiator.—Darius G. Fletcher, Racine, Wis: I claim, First, The cast iron -du

Wis.: I claim, First, The cast-iron ring, c, and arms, d, for supporting the chamber, B, within the case, A, substantially as and for the pur-pose specified. Second, The rectangular openings, e f, of the upper register of the chamber, B, for the purpose of facilitating the construction of the device.

Third, The cast-iron ring or cover, E, for the space between the hamber, B, and cylinder, as set forth. [This invention relates to a new and improved heat radiator for stove pipes, and is an improvement on a similar radiator for which

etterspatentweregranted to this inventor. bearing date April 17, 860.)

47,536.—Shovel Plow.—C. Ford, Forest City, Ill.: Iclaim, First, The mode of making a n even-draft two-horse shovel plow, as berein described, with the sh afts. F. attached to the frame by the hinges, m and n, and connected by the coupling bar. II, which arrangement, while it holds the shorels evenly, enables the operator to change the face of the shovels at will, and thereby guide the plow. Second, The false cutters, K, in connection with the braces, I, made to slide in the groove in the head-piece, D, and secured by the clamps,

, as herein set forth, in such manner that the operator, by loosing he clamps, J, may change the width between the shovels by sliding he tops of the braces in the groove. Third, The ring-headed bolt, O. for holding the double rees on the low, substantially as herein set forth, in such manner that when he plow is thrown on its slide they will balance, remaining parallel o the neck yoke.

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47,537.—Window Lock.—F. G. Ford, Washington, D. C. I claim the face plate, to which is attached the double right angl slotted tube, the semi-rotating slding spring bolt, the recesse guiding plate, and the double inclined recessed plate catch, the sam being applied and operating in the manner as and for the purpose herein specified.

38.—Preparing Hemp, Flax, Etc., for Spinning.— Jim B. Fuller and James P. Upham, Claremont 538

Jim B. Fuller and comparison of the vegetable fiber in the manne We claim drawing or separating the vegetable fiber in the manne specified, previous to a carding, picking, or beating operation, for the purposes and as set forth. We also claim carding the fibers of flax, hemp, etc., in a moist con dition, for the purposes specified.

ution, for the purposes specified. 47,539.—Process for Separating the Fibers of Hemp, Flax, Etc.—Jim B. Fuller and James P. Upham, Claremont, N. H. Antedated April 18, 1865: We claim the mode herein specified of separating vegetable fiber to the action of steam under pressure, and then to a series of expan-sions derived from the sudden discharge of steam (but not fiber) from such vessel, as and for the purpose specified. 47, 540.—Instrument for Continue to the second seco

from such vessel, as and for the purpose specified.
47,540.—Instrument for Curing Piles.—J. P. Gilbert, M. D., Long Island City, N. Y.: I claim, First, The cold body, A provided with a nipple, B, con structed and operating substantially as and for the purpose specified. Second, The grooves A. in the nipple, B, applied and operating substantially as and for the purpose set forth.

[This invention consists in the employment or use of any cold body provided with a nipple to enter the rectum in such a manner that by said cold body the blood in the tumor is deprived of its superfluous heat and returned to its regular channels. The nipple server to keep the cold body in its place, and in order to allow the blood to clrculate from the tumor, said nipple is provided with grooves near its base. By applying suitable ointment to the nipple, the effect of this instrument can be improved, and the ointment is kept m a box placed in the cold body, which is made hollow for this purpose, a provided with a cover that can be readily removed and replaced.] and

47,541.-Mode of Mounting Drills.-Herman Haupt

47,541.—Mode of Mounting Drills.—Herman Haupt, Cambridge, Mass.:
I claum, First, Mounting drilling, boring, or other like machinery, when arranged for operation by steam, compressed air, or other fluid, upon a columnar frame, whether solid or tubular, and whether steam or other fluid is conveyed to said machinery by independent pipes or through the columns, substantially as set forth.
Second, In combination with the columnar frame for the support of machinery for drilling or boring rocks or other subterranean operations, I claim the pointed set screws, or the eauivalent thereof, to brace and steady the said frame, in the manner substantially as set forth.
Third, In combination with columnar frame, which, for the pur-pose of conveying steam or other fluid, is bollow, I claim the thimbles neasing the set screws to protect the same and prevent leakage, substantially as set forth.
Fourth, The combination of the columnar frame with adjustable supports for the bearings of the trunnions of drills or other like ma-chinery, so as to admit of adjustment of said drills at any hight and at any angie in the place perpendicular to the axis of the trunnions.
Fifth, Making the supports of a segmental forth, and forming the bearing therein adjustable, so as to admit of universal motion of the drills, substantially as set forth.
47,542.—Chair and Cradle.—George W. Hawk, Chicago,

47,542.-Chair and Cradle.-George W. Hawk, Chicago 111.

Ill.: First, I claim the combination and arrangement of the two sections, A A, the ends, C C, and the rockers, B B, operating substantially as and for the purposes therein shown and described. Second, I claim constructing the bottom of the cradle of five parts, D E F G H, when arranged and operating as and for the purposes specified and shown. 47.543.—Die for Cutting Screw Threads.—Benjamin S.

1,353.—Diff for Cutting Screw Threads.—Delijamin S. Hill, New York City: I claim the arrangement of the chasing or cutting points of a die r chaser for cutting inces or edges, or spiral to the axis, substantially s and for the purpose herein set forth. -Explosive Shells.-B. B. Hotchkiss, New York 47.544

City: I claim the employment of the webs, B and C, or either of them, arranged to extend from the inner surface of a shell nearly to the center or axis, substantially in the mant.er and so as to serve the double purposes herein set forth.

47.545 .-Tomato Soup.-James H. W. Huckins, Boston Mag

I claim the composition made in manner and of materials sub tantially as hereinbefore specified.

47,546.-Rotating Stop Cocks.-Daniel Hurd, Chicago TIL:

First, I claim the combination and arrangement of the jacket, E, and the barrel, F, provided with the three series of holes, a' and g, operating as and for the purposes specified and shown. Second, I claim, in combination with the above, the employment of the dial and pointer, arranged as and for the purposes described.

Second, I claim, in combination with the above, the employment of the dial and pointer, arranged as and for the purposes described.
47,547.—Jacks and Mules for Spinning Yarns.—John Goulding, Worcester, Mass.:
First, I claim the combination of a series of prostrate spindles, roller jaws, a morable carriage, and upright guides for the carriage, substantially as set forth.
Mecond, The combination of a series of prostrate spindles, roller jaws, turning spool support, morable carriage, and upright guides for the carriage, and upright guides for the carriage, substantially as set forth.
Third. The combination of the rising and descending carriage and roller jaws with upright guides for the carriage and a sack, substantially as set forth.
Fourth, The combination of the rising and descending carriage, roller jaws and turning spool support with upright guides for the carriage and a sack, substantially as set forth.
Forth, The combination of the rising and descending carriage, the revolution of said jaws, when the length of rolling service, the roller jaws, turning spool support, and the gearing or transmitting motion to roller jaws and turning spool support, with instrumentalities for stopping the revolution of said jaws, when the length of rorlings required for one spinning operation has been delivered, substantially as set orth.
Seventh, The combination of a series of prostrate spindles with two trains of driving mechanism and with shifting mechanism to put the spindles in connection with one or other train of driving mechanism and with a slite of driving set forth.

forth. The combination of a series of prostrate spindles with a Eighth. The combination of a series of prostrate spindles with a shifting mechanism to connect and disconnect the spindles therefrom, sub-

train of mechanism for turning them backwards, and with shifting mechanism to connect and disconnect the spindles therefrom, sub-stantially as set forth. Ninch, The combination of a series of prostrate spindles and the train of backing-off morement, substantially as set forth. Tenth. The combination in a jack of the backing-off mechanism, the faller mechanism and the devices for varying the extent of movement of these two mechanisms substantially as set forth. Eleventh, The combination of a series of prostrate spindles and the train of driving mechanism for impelling them with varying speed during winding, with mechanism for changing the varying speed during winding, with mechanism for changing the varying mechanism, substantially as set forth.

47,548.—Machinery for Making Screws.—H. A. Harvey, New York City:
 First, I claim the combination substantially as described herein of

ubstantially as described here in of

oppers or receptacles, forwarding ways, delivering apparatus and wo setts of conveyors or elevators with shaving, nicking and breading machines whereby headed blocks may be thrown into a opperand converted into screws without manua, iabor, as described, he blanks being transferred from one machine to the hopper or retwo setts of conveyors of elevators with snaving, nicking and threading machines whereby headed blocks may be thrown into a hop erand converted into screws without manua; tabor, as described, the blanks being transferred from one machine to the hopper or re-ceptacle of another by elevators or conveyors operating in the com-bination substantially as specified. Second, The combination of a shaving machine and a nicking machine with an elevator and a hopper and its accessories, substan-tially as described, whereby headed blanks may be converted into nicked blanks, substantially as specified. Third, The combination of a nicking machine and a threading machine with an elevator and a hopper and its accessories, substan-tially as described, whereby shaved blanks may be converted into screws substantially as set forth. Fourth, I claim a pyramidal hopper or receptacle provided with an oscillating agitator constructed and operating substantially as specified.

au oscillating agitator constructed and operating substantially as specified.
 47,549.—Machinery for Making Screws.—H. A. Harvey, New York City:
 I claim. First, The combination substantially as described herein of hoppers or receptacles, forwarding ways, delivering apparatus, and shaving, nicking and threading machines, whereby headed blanks may be thrown into a hopper and converted into screws without manuel labor, the machine operating on the blanks, being stranged on different levels as described, and the blanks descending from one machine to another substantially as set forth.
 Second, The combination of a nicking and shaving machine, on different levels, and in working connection with each other by means of apparatus, substantially such as described, the whole arranged and operating substantially as specified.
 Taibrd, I claim the combination of a nicking machine, with a threading machine, on different levels, and operating substantially such as described, the whole arranged and operating substantially as specified.
 Taibrd, I claim the combinating g and taking substantially as a described, the whole arranged and operating substantially as specified.
 Taibrd, I claim the such manner substantially as escribed, that blanks may be transferred from one machine to another without handling, substantially as set forth.
 47,550.—Apparatus for Carburceting Air Depiel Hurd

47,550.—Apparatus for Carbureting Air. Daniel Hurd (assigner to himself, Edwin K. Hurd and Amasa E. Swift, Jr.), Chicago, Ill.: I claim the peculiar combination and arrangement of the cylin-drical vessel, A, the floors, g h i, the peculiar curved vertical parti-tics, a, and the barriers, c d e f, constructed and operating as and for the purposes specified and shown.

for the purposes specified and shown. 47,551.—Lantern.—John H. Irwin. Chicago, Ill.: First, I claim dividing the guard of a lantern, in two or more parts by a horizontal section, substantially as and for the purposes herein specified and shown. Second, I claim connecting the parts of the guard by a hinge upon one side and the catch, F, or its equivalent upon the other, substan-tially as shown and described. Third, I claim providing the parts of said guards with the curved projections, a', substantially as and for the purposes specified and shown.

Fourth, I claim the combination and arrangement of the guards a and b, etc., the rings, c d, substantially as shown and set forth.

47,552.—Toy.—H. C. Ketcham, Bloomfield, N. J.: I clam the apparatus called the mystic cord constructed and ope-rating as above described, as an improved article of manufacture. [This invention consists in the construction of a toy called the

mystic cord, the cord being concealed in the sides of two or more blocks connected at their lower ends so as to allow their upper ends to pass each other.]

47,553.—Horse Hay Rake.—George W. King, Green-ville, N. Y.: I daim. First, The lever, N, in combination with plate, h, and arm, Y, provided with wheel, C, the whole arranged and operated in the manner substantially as and for the purposes herein set forth. Second. The lever. D, in combination with lever, E, arranged and operating as and for the purpose herein specified.

operating as and for the purpose herein specified. 47,554.—Coupling Shafts of Boring Tools.—Robert H. Lecky, Allegheny City, Pa.: I claim the use of the coniformed base, E, and angular groove, R, ether separate or combined, when used in connection, with the screw, A, or male part of the socket joints for oil, tools, etc., the nut, B, or female part of the joint being fitted and adapted to the male part. The whole being constructed, arranged and operating sub-stantially in the manner herein described and for the purpose set forth.

47,555 .- Coupling Shafts for Boring Tools .- Robert H. Lecky, Allegheny City, Pa.: I claim constructing the screwthreads of socket joints for oil ools, etc., in the manner substantially herein described and for the surpose set forth.

47.556.

pose set forth. 556.—Belt Buckle.—Ferdinand and Charles Lemme, San Francisco, Cal.: 7e claim the arrangement of the cross-bar and flange, D and E, h the tongue, F, in combination with the main plate or shield, A i, when the parts are connected and filled to produce the result stantially as described. We

Ar, when the parts are connected and anter to produce the result substantially as described.
A7,557.—Gold Separator.—Wm. H. Long, Mountain City, Colorado Ter.:
First, I claim conveying the 1 productof the battery through the mercury and discharging it beneath the same, by creating a vacuum at the end of the conveying tubes, D'D', substantially as and for the purposes herein specified and shown.
Second, I claim the employment of one or more tubes, D D', arranged and operating substantially as and for the purposes set forth and described.
Third, I claim the combination of one or more air tubes, C C', with the tubes, D D', arranged and operating as and for the purposes set forths, S, with the tubes, C'D', as and for the purposes described.
Firth, I claim the combination of the shaft, F, the funnel, E, Fitch, I claim the combination of the shaft, F, the funnel, E, Fitch, C D', and aprons, S, arranged and operating as and for the purposes described.

47,558.—Pulley Block.—Peter Luck, Williamsburg,

N. Y. I claim the movable side wing or wings applied in combination with the locking pin and with the axle of the sheave or sheaves of a pulley block substantially as and for the purpose set forth.

[This invention consists in the application to a pulley block of one or more movable side wings in combination with a locking pin and ung upon the axle of the sheave or sheaves in the pulley block in such a manner that by withfrawing the locking pin said movable side wing or wings are liberated and free to turn down, and thereby free access is given to the sheave or sheaves in the block. By this arrangement much time is saved in hitching up the rope.]

47,559.—Lunch Box.—John F. Morgan, Boston, Mass. 1 laim a folding box made substantially as herein shown and de scribed either with or without a bottom receptacle. [This invention principally relates to a peculiar construction of a

unch box whereby when empty it can be folded into a very compact and convenient shape for being carried.]

47,560.—Means for Adjusting the Driving Wheel of Sewing Machines.—Nicholas Niederpruem, Buffalo, N. Y.: I claim the arrangement of the silding frame. F. thumb screw. E.

e arrangement of the sliding frame, F, thumb sci boxes, e e, in combination with the table top of substantially as and for the purpose herein set fo jouanal boxes, e e, in comi machine substantially as an ng

47,561.—Lubricator.—L. H. Olmsted, Newark, N. J.: I claim a hollow shaft with an aperture or apertures open from interior to the exterior, said apertures being closed with leather any other substance that will produce the intended effect, for the p from the eather or r the pur-

47,562.—Preparation of Nitrate of Potassa.—H. S. Osborn, Belvidere, N. J.: I claim the manufacture of nitrate of potassa form the laxivum of wood ashes, in the manner substantially as described.

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7,563,—Animal Trap,—George W. Pagett, Adam's Trap, Ind :

Ind.: claim the combination of the catch and head board, thereby ding a pojsed platform stationary until the treadle is depressed. to the stationary bait rans in combination with the self adjusting er treadle, so arranged that the rat must come in contact with treadle before it is in reach of the bail, consequently the plat-m falls, leaving the bait uncoucled. I clai ever tread

47 564.—Apparatus for Preparing Peat for Fuel.—Na-thaniel F. Potter, Providence, R. I.: First, I claim the combination of a mill for tempering peat, as de-scribed, with a morshie carriage, for the purposes specified. Second the combination of the clutch. H, with the pinions, F F', and the toothed gears, G G', for the purpose of imparting motion to the shaft, B, in either direction as desirable for the purposes speci-fied.

The shaft, B, in either direction as desuration to the performance of the shaft, B, in either direction as desuration of the endless apron, L, with a cylinder where surface is provided with cells or its equivalents, substantially as described for the purposes specified.

47,565.—Globe Cock.—James Powell, Cincinnati, Ohio: I claim the combined valve and valve stem constructed and guided substantially as herein set forth.

substantially as herein set forth. 47,566.—Stone Gatherer.—J. L. Quinby, Pleasant Grove, Pa. Antedated April 26, 1865: First, I claim the endless apron, K, in connection with the rotat ing toothed cylinder, N and the scoop L, arranged with the bars, I I, and arms, M M, spilled to the mounted frame, A, substantially as and for the purpose herein set jorth. Second, The shaft, H, the bars, I I, arms, M M, and cords, q, in combination with the lever, d, bearing, a, shaft, E, and lever, G, all arranged substantially as shown.

This invention relates to a new and improved machine for gath-ring stones from a field and depositing them in a proper receptacle from which they may be readily discharged at the will of the driver.l

47,567.—Cooking Stove.—Lewis Rathbone and William Hailes, Albany, N. Y.: We claim grating the back plate of a stove so that the draft flue will cause air to circulate through the bed of partially ignited coals from a point near the base to the top thereof, from a chamber in rear of said back plate, in such manner that the refractory particles of soal are caused to burn, substantially as described. Second, The combination of a front passage, i, a grated back, D, and a cross passage f, substantially as described.
Third, The combination of the front passage, i, and passages, F F, ross passage f, grated back, D, and fartt flue, b, substantially as described.

described. 47,568.—Cultivator.—William Rhodes and Moses Por-ter, Lovington, Ill. Antedated April 20, 1865 First, We claim the roller, F, incouted upon the tongue, E, and adapted to move simultaneously therewith so as to chauge the line of draft in the manner and for the purpose here in set forth. Second, We claim the slot, e, whereby the drait may be shifted at will from the tongue, E, to the roller, F, in the manner and for the purpose described.

purpose described. 47,569.—Apparatus for Heating Buildings.—Hamilton Richardson, Janesville, Wis.: First, Iclaim the series of radiating pipes, 123, etc., arranged in a hot air chamber within the chunney and so provided with cross or connecting pipes and valves that the drait may be varied at pleas-ure from a direct to an up and down draft substantially as and for the purposes herein set forth. Second, In combination with the hot air chamber above described, I claim the flues or passages, and e, constructed and arranged to operate substantially as and for the purpose set forth. Third, In combination with the hot air chamber above described, I claim the flues or passages, g and h, for the purpose of admitting cold or fresh air from the room or from outside of the building, as herein set forth.

Arton act roug Buckle.—Clark D. W. Ries, Edwards, N.Y.: I claim the combination of the hinged bar, I, with the tongue, K, projecting from the inner bar of the buckle, substantially as de-scribed, and for the purpose set forth.

47,571.—Tool for Marking Dice, Etc.—Calvin B. Rogers Deep River, Conn.: I clain: the implement, A, constructed and operated substantial, as how e described, for the purpose of blacking dice tablets and oth r

[This invention consists in the construction of an implement for acking dice and other articles, whereby great facility can be at-ined in the work, and whereby also the same can be done with tained in the work, and whereby also the same can be done with reater neatness than has been possible with the implements heretoore used. l

47,572.—Machine for Cutting Ivory.—Calvin B. Rogers. Deep River, Conn.: First. I claim the cutter, H operated from below the bed upon the under side of the work while it is held upon the bed, substantially as above described.

is above described. Second, I also claim the combination in machines forcutting ivory and other substances of a holding rod applied within the kerf of a jutter with a cutter which divides the work from the stuff, and with a drill or centering or marking cutter operated from below the work, ubstautially as described.

(This investion consists in various improvements in machines for cutting ivory, bone, and similar substances, which enable the workuan to cut out his work with perfect edges and with great facility.

47,573.—Bucket Ear.—Lynford Rowland, Philadelphia,

Fa.: I claim as an improved article of mauufacture a bail ear for buck-ts and other vessels, made substantially as herein shown and de wribed.

cribed. [This invention relates to a peculiar construction of ball ears for buckets, etc., whereby they can be set upon the buckets in such a manner as to allow the handle to swing entirely below the top of the same, the advantages of which are manifest.]

47,574.—Harness Buckle.—Cyrus W. Saladee, Putnam,

17,574.—Harness Duckies, as a solution of plate, A, in Standard M, and A, and and A, and A, and A, and A, and A, and a

combination with the indentation, V.
47,575.—Lock.—James Sargent and H. W. Covert, Rochester, N. Y.:
We claim a magnet, employed in combination with the mechanism of a lock, in such a manner as to disconnect the action of the dog, or equivalent, that releases the bolt from the operating shaft or key, substantially as herein set forth.
In combination with the magnet, E, we also claim the employment of the armatures, G H, the former having the dog, g. attached, and so operating in relation to the purmutation wheels that when the connection of H is broken, that of G will be formed, to allow the dog to enter the notches, substantially as set forth.
In combination with th gate. I, we also claim the shoulders, m and the cam pin, o, arranged and operating substantially service.

nd the cam pin, o, arranged and operating substantially We also claim the tumbler, K, in combination with the armature i, substantially as herein set forth. We also claim retaining the permutation wheels in place on their caring, and preventing them from coming in contact with each ther, by means of the grooves, J J, and pins, Z Z, or equivalent, ubstantially as herein set forth. We also claim the combination of the spring rinz, u, and center, i, constituting the permutation wheels, substantially as and for the urpose herein set forth.

47,576.—Machine for Boring Hubs.—Peter Schuttler, Chicago, Ill.: First, I claim the employment, in combination with a machine designed for boring taper eyes or holes in hubs, of a horizontal

pivoted bed, C, or its equivalent, substantially in the manner and for the purpose described. Second, The employment, in combination with a machine designed for boring taper holes or eyes in lubs, of a laterally udjustable car-riage. E, and a longitudinally movable carriage. D, and a pivoted bed, C, all constructed, applied and operating substantially as and for the purpose set forth. Third, The employment of rack and pinlon, rp, in combination with a feeding screw, B, and contrivances for throwing this screw into and out of gear with the carriage, D, substantially as described. Fourth, The vertically sliding half nut, h, toe lever, i, weight, w, shaft, i, and feeding screw, B, in combination with the tool carriage of a hub boring machine, substantially as described. Nixth, The boring tool, E, constructed with a cutter, f, spiral flange, and a sloutber cutter, g, substantially as described. 47,577.—Mode of Annalgumating the Precious Metals.— Charles A. Seely, New York City: I claim the injection of steam or water, or both, at the bottom of the mercury in an amalgumating wessel, substantially as described 47,578.—Steam Gage,—Thomas Shaw, Philadelphia, Pa.:

47,578.—Steam Gage.—Thomas Shaw, Philadelphia, Pa. I claim the employment of a gum tube in the manner specified claim the employment the purpose set forth

47.579

r the purpose set form. 7,579.—Circular Knitting Machine.—Charles Shirtcliff, Philadelphia, Pa.: I claim the plate, G, and plate, G', with its depressions, d, arranged nd operating in respect to the levers, II, of a circular knitting ma-nine, substantially as and for the purpose described. 47,580.-Sleds or Carriages.-Henry Smith, Naubuc

47,580.—Sleds or carriego. Conn.: I claim the combination of the lever, segment, gears, h and g, pawl and ratebet wheel, k and i, and creaper wheel, m, with the car-riage, substantially as described. I claim with the above the combination of the guide, n, plate, o, and foot lever, q, with the carriage, substantially as described.

and toot lever, q, with the carriage, substantially as described. 47,581.—Lining for Petroleum Barrels.—Wm. H. Stone, Brooklyn, N. Y.: I claim the within described process of rendering barrels or other packages impervious to petroleum or other similar figuids, by treat ing them in the manner substantially as herein set forth.

(This solution consists in furnishing barrels with a lining of pur

res, with a quantity of wax in them, so that the wood will absor

quantity of wax, and the surplus can be readily made to run of eaving the inner pores of the wood saturated with the wax.] 47.582 -Fifes and Flutes.-A. H. Stratton, New York

47,562,—Files and Files.—A. In Stratter, Yen 201. City: First, I claim the revolving finger-piece, B, with two or more sets of funger holes, in combination with the main barrel, A, of a flute or file, constructed and operating substantially as and for the purpose set forth. Second, The longitudiually adjustable mouth-piece, C, in combi-nition with the main barrel, A, of a flute of file, constructed and operating substantially as and for the purpose described. Third, The self-adjusting plug, e, applied to the skilding mouth-piece, C, in the manner and for the purpose substantially as set forth.

C, in the manner and for the purpose substantially as set forth. 47,583.—Apparatus for Shifting Sugar Pans.—Milbern Tibbets, Lancaster, Ind.: First, I claim, in the described combination with a furnace and railway, the mode of elevating the evaporating pan on to the ways by means of the arms. D d D'd', wheels, E e'e', ievers, F G F G, and catches. H H', or devices substantially equivalent. Second, I claim in this connection the removable sections, c and c', arranged and adapted as set forth.

47,584.—Globe Time Piece.—Theodore R. Timby, Sara-toga Springs, N. Y.: I claim attaching the axis of a terrestrial globe to a dial, and revolving both once in twenty-four hours, substantially for the pur poses herein specified, with or without an ordinary dock dial. [This invention consists in attaching the axis of a terrestrial globe

to a dial, and revolving both once in twenty-four hours, in such a manner that the globe stands out beyond the front of the clock case and the effect of the time-pice is materially enhanced, while it serves at the same time to show at a glance the difference of time in places of different longitude, or the difference of the time between any place on the whole globe, and the place where the clock is used without being compelled to turn the clock fround or to look behind the case.]

47,585.—Globe Clock.—Theo. R. Timby, Saratoga Springs. N. Y.: I claim a gobe revolving once in twenty-four hours, in combina-tion with a fixed dial and moving hands, substantially in the man-ner and for the purpose here a shown and described.

This invention consists in combining with a globe revolving one n twenty-four hours, under a stationary index, one or more hand n twenty-four hours, under a stationary index, one or more hands, revolving upon a clock dial in such a manner that by said clock dial and revolving hands the local time isindicated in the usual manner, and at the same time the globe and the stationar index affords th means to read of the difference of time in places of different long itude, or the difference of time between any place on the globe an the place where the clock is used.]

the place where the clock is used.]
47,586.—Timing Explosive Shells by Clock-work.—Frederic Toggenburger, Chicago, 111.:
First, I claim exploding a bombshel by means of a clock-work applied within said shell, substantially in the manner described.
Second, Providing the clock-work used within a bombshell for exploding the same with a regulating apparatus. by means of which is said clock-work work well at a given time.
Third. Starting the clock-work within a shell, and by which it is to be exploded by the action of the powder charge, which is used in firing the shell from the gun.
Fourth, The combination of the clock-work movement with the rod. M, and the fulminating capsule for exploding the shell, substantially in the manner described.
Fifth, The combination with the clock-work and the exploding de vice within the shell of the yleiding plug, H, by means of which hig sherein described.

47.587.—Horse-rake.—H. Tunison, Whitehall Grove, III., I claim a horse hay-rake, consisting of the body, A provided with the series of teeth, a a, and pr. vided with the reversible rods, d, or their equivalents, attached separately, as shown, for the purpose of enabling it to be drawn and operated by animals acting independ-only at each end, substantially as herein shown and described.

ontly at each end, substantially as herein shown and described. 47.588.—Lock.—Conrad P. Wagmer, New York City : First, I claim the movable stop, 21 H, in combination with the longitudinally movable central spindle, F. rotating tumblers, B B 18 B 3H, permutation plates, C'G 20 3G c4 and tumbler box, C C's substantially as and for the purpose herein specified for the bolt. D, second, The tumbler box, C C', inclosing the tumblers separately from the other parts of the lock, forming a guide for the bolt. D, tially as herein specified. Third, The sleever, M, with one or more stoted fanges or tumblers, "M, and the purpose herein specified. Third, The sleever, M, with one or more stoted fanges or tumblers, unation with the bolt of the lock and with the spindle, k, substan-tially as and for the purpose herein specified. Fourth, The cover, F, for inclosing the permutation plates, se-cured by means of two r me purpose herein specified. 47.589.—Blank for Scythes.—Herver Waters, North-

47,589.

89.—Blank for Scythes.—Hervey Waters, North-bridge, Mass.: I claim the double rod or blank for two, four or more plates, when haped and arranged substantially as and for the purposes specified

47,590.—Machine for Rolling Metal.—Hervey Waters, Northbridge, Mass.: I elaim a system of grooves for drawing and shaping, substan-ti ally as and for the purposes specified.

47,591.—Horizontal Baling Press.—John D. Wilber, Pleasant Plains, N. Y.: First, I claim the employment or use of two press boxes, placed or arranged in line with each other, in connection with a single fol-lower, operated by four screws, all arranged as herein set forth. Second, The opening, e, employed in the described combination, with and relation to the follower, D, and slots, c and d to admit of the introduction of the material into the press boxes, without the use of doors, as explained.

[This invention relates to a new and improved baling press, of that class in which two horizontal press boxes are employed, in order

that the material to be compressed and balled may be placed in one press box, while the material which was previously placed in the otherpress box is being compressed within it.] 47,592.—Ox Yoke.—Erastus S. Woodford, Winsted.

Conn

COULT: I claim the spirally grooved rod, D, by which their simultaneous movement is directed, thus adjusting the length of bow by which ach ox works.

-Seed Planter.-Lum Woodruff, Ann Arbor, 47,593

17,593.—Seed Planter.—Lum Woodruff, Ann Arbor, Mich.: First, I claim the conical dropping tube, A, consisting of the cone, a, with the partitions, b b, separating the space between the cone, a, and its concentric ourer covering. A, into several grooves or hannels, for the more effectual scattering of the seed, the whole being constructed and arranged substantially in the manner and for the purpose above specified Second, I claim the arrangement of the small triangular drag, B B, with the teeth, t t, when placed on each side and in front of the manner and for the purposes set forth in the above specification. Third, I claim the adjustable cross bar or cage, c, when movably ittached behind the teeth, e e, so that it may be raised or lowered to control the depth of working of the teeth, e e, as described in the ipecification.

Specification. 47,594.—Spring Bedstead.—Wm. Woods and E. Smith, Worcester, Mass.: We claim the combination of the two sets of springs, inter-vening cross bars and sockets, when constructed and operating in the manner and for the purpose of giving ease and buoyancy to the slats, substantially as described.

47,595.—Chain for Water Elevators.—Philander Ander-son (assighor to himself and P. K. Bronson), East Avon, N. Y.:-I claum as an improved article of manufacture, the malleable from Square, or fat link chain, the links and swivel being constructed and connected in the manner shown and for the purposes specified.

connected in the manner shown and for the purposes specified. 47,596.—Grain Dryer.—Lewis S. Chichester (assignor to himself and Clark W. Mills), Brooklyn, N. Y. Ante-dated April 15, 1865 : I claim, First, The combination with a drying or cooling app aratus for grain, of two or more devators, substantially as specified, so that the grain can be passed through the drying apparatus, and again elevated and delivered, or elevated and delivered at once, substan-tially as se edided.

the grain can be passed through the infine approximation of the set of the se

atents, and the whole being arranged substantially as specified. 47,598.—Pulley Block.—Robert P. Fuller, Machias, Maine, assignor to Henry Richmond, San Fran-cisco, Cal.: I claim the combination of the grooved cheeks, A A, strips, C C, metallic arrap, a a b b', and hook, D, all constructed and arranged as and for the purpose herein specified.

(The object of this invention is to construct ships' blocks in such

a manner that the checks of the same will be prevented from split-tug, and to this end the checks are arranged with the grain of the wood, at right angles with the metallic strap which encompasses the block, the strapibeing fitted in grooves in [the cheeks, so that the outer surfaces of the former will be flush with the outer surfaces of the latter.]

the latter.] 47,599. —Borer for Wells.—Thomas J. Lovegrove (as-signor to himself and Henry Raldwin, Jr.), Phila-delphia, Pa.: I claim, First, A drill, with two or more cutting edges, sloped from too to heel, at an angle to its line of vibradion, substantially in the manner described, for the purpose of boring a hole of larger diame-ter than the drill, as set for h. Second, The combination with the drill of the inclined wings or fanges, E S, subscantially as described, for the purposes of furning the drill automatically, and of smoothing and rounding the hole, as

have the dril nutomatically, and of smoothing and rounding the nois, as set forth. Third, A tubular jar, so constructed as to serve as a pump for re-moving deritus from the well. Fourth, A cylinder containing a chamber which serves the double purpose of an air cylinder and a detritus chamber Fifth, The combination of a tubular jar and a sand pump, in such manner that one of the tubes of the jar shall form the induction pipe of the sand chamber. Sixth, The combination is an instrument for boring wells, of a hol-low drill and a tubular jar. Seventh, The combination of a hollow drill, a tubular jar, a sand pump, and a fixtible hose or discharge pipe. Eighth, The combination with a drill of flanges, E E, to turn it, and ratchets, d d', t prevent its backward movement, substantially as described.

as described.
47,600.—Borer for Wells.—T. J. Lovegrove (assignor to himself and Henry Baldwin, Jr.), Philadelphia, Pa.: I claim, First, Rotating a boring tool by hydraulle pressure, substantially in the manner described of the combination with a drill of a tubular lar, rotated by the fluid passing through it, substantially as described.
Third, The combination with a drill of a tubular lar, rotated by the fluid passing through it, substantially as described.
Third, The combination of a ratchet or other detent, to prevent its rotation is the opposite direction, substantially as described.
Fourth, The combination of a rotating drill with a discharge pipe with a swireling join, substantially in the manner described.

Firth. Suspending and vibrating a rock drill by two ropes, sub-tantially in the manner described, for the purpose of rotating the full by the reacting twist of the ropes, as set forth. Sixth, The combination of an automatically revolving drill, with an automatically rotating jar, substantially as and for the purpose of forth.

set forth. 47,601.—Rock Drill.—T. J. Lovegrove (assignor to him-self and Henry Baldwin, Jr.), Philadelphia, Pa.: I claim a rock drill, perforated from is face to its head, and hav-ing cutting edges around the perforation, in combination with a valve, substantially as described, for the purpose of removing the detritus through the drill. Second, A drill having part of its cutting surface radial to its cen-ter, and at a right angle to its line of vibration, and the other part sloped downward from hull to toe, at an obtase angle to its line of vibration, substantially in the manner described, for the purpose of cutting a hole of a diameter greater than that of the drill, as set forth. binn, Also, use preduct cound duction on the tool for dhamfering the end of the barrel, as above described.
1,947.—Barrel Machinery.—Wm. Trapp, Jr., Elmira, N Y. Patented Oct. 1, 1845. Reissued March 10, 1849, and extended:
First, In barrel machinery I claim jointing the edges of staves, substantially in the manner above described.
Second, In machiner y for beveling the edges of staves of varying widths while bent into the proper blye form. I claim providing for retaining the place of cut is the same position relative to the stave that a radial plane passing through the imaginary axis of the cask and the beveled edge of the stave will occupy when the cask is completed, substantially in the manner described.
Third, In barrel machinery I claim the jointing of a stave of the proper bevel and shape by a straight jointer, while the stave is so ben't that the joint, when it shall be placed in the cask, will be in a radial plane passion through the maris of the cask, substantially in the manner described.

Cutting a note of a unancer grant and a surfaces on one side, Third, A drill having two or more cutting surfaces on one side, and a single cutting surface in a higher plane on the other, substan-tially as described, for the purpose of cutting a core with the polyg-ons surfaces to be removed by the single cutter. Fourth, A drill having cutting edges on different planes, the one borizontal land the other at an obtuse angle thereto, substantially

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bortsontal land the other at an obvious and the state of the state of

different horizontal planes, of the wings or flanges for rotating the drill, substantially as described.

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47,602.—Machinery for Forming, Baskets.—John W. Millet, Bachelorsville, N. Y., assignor to Benjamin R. Jenkins and Cyrus Sumner, Edinburgh, N. Y.: First, I claim the conical drum, F. provided with the channels or grooves, f f f, and alternate projections, g g g, in combination with the cluck, G, and flange plate, L, substantially as shown. Second. I claim the follower, M, in the movable rest pressed against the movable drum by means of weights in the manner de-scribed. Second. I claim the rowser, and the guide spring, T, sub-against the movable drum by means of weights in the manual se-berbed. Third, I claim the vibrating lever, R, and the guide spring, T, sub-stantiarly and for the purpose specified.

47,603. — Device for Securing Grain Bands.—John Nelson (assignor to himself and Wales Needham), Rock-ford, Ill.:

ford, in.: claim securing the ends of the twine or cord bands used for bind-sheaves of grain by means of metallic clampe, applied in the nner, without any knotting of the band in fastening, as hereinbe-or effort:

manner, wi

an inter, winder any anothing of the ball in rastening, as hereindefore set forth.
47,604.—Machlue for Cleansing, Dressing, and Cutting Flax, Etc.—Ezekiel Phillips, Blackstone, Mass, assignor to himself and Danlel B. Pond, Woonsocket, R. I.:
1 claim the combination or machine as consisting not only of the intermittent feeding mechanism, and the movable knife or mechanism forcutting of the fibers, in manner as described, but a stationary grid or grating (arranged in the case as set forth) and a rotary beater, so arranged as not only to operate with the knife and cause substantially as specified.
And furthermore I claim for use in this particular class of machines, but with respect to such arranged and riving gear, i, as made not only with an arc of teeth, but with an auxiliary tooth, supported by a spring, arranged with respect to such are gubstantially in manner and forthe purpose as breinbefore explained.

47,605.—Machine for Cutting Nails.—Edwin Reynolds, Mansfield, Conn., assignor to himseli and Benjamin Gage, Boston, Mass.: I claim as my improvement in nail-cutting machines their organ-ization with two pairs of cutter heads, each one of which carries two or more cutters, the whole being so arranged as to operate acress the entire width of a sheet of metal, to cut from the end thereof, simultaneously, two or more nails, without glving to the nail plate any other movement than its progression or feed

47,606.—Manufacture of Metal Boxes.—Wm. T. Slocum (assignor to James S. Mason & Co.), Philadelphia, Pa.:

Fa.: I claim connecting together the ends of a strip, A, by inserting the lips, as i, as tone end of the strip through the skots, ec, at the oppo-site end, and bending them down against the inner side of the slot ed end, when the said lips and slots are formed substantially as de-scribed.

and the said has the sets are to mee substituting as described.
47,607.—Pneumatic Churns.—Abbie J. Smith, Litchfield, Conn., Administratrix of the Estate of Andrew P. Smith, deceased.
I claim, First, The double-action bellows, operated by a crank and playing holes in its lower bearing to receive the wind from the bellows and distribute it in the cream. In the manner herein described.
Second, I claim the valve, i i, in the recess, i, and the air chamber, g, in combination with the induction holes, o, in the bearing of the bollow shaft, F, for the purposes set for h.
Third, I claim the horizontal air tube, I, with its openings, n n, in combination with beleaters, m, m, operating in the manner herein described for the purposes specified.

## REISSUES.

1,943.—Magazine or Self-loading Fire-arm.—G. W. Hughes, Bloomington, Ill. Patented Nov. 15, 1864 : First, Iclaim pivoting the rolling breech-piece, C. upon the circu-lar head of the lever bar, as shown and described. Second, I claim the sliding breech block, D, when constructed with the finange, having an opening for the hammer to strike through, and operating in connection with block, e. as herein set

on ough, and operating in connection with block, e, as herein set forth. Third, I claim pivoting the lever guard, b, breech-piece, C, harm-mer, E, and the independent cocking device, all upon a single boit, as substantially shown and described. Fourth, I claim the retractors, g s, when constructed and operat ing as set forth. Fifth, I claim the use h a magazine gun of a chain, constructed and operating substantially as set forth. Sixth, I claim the plate, G, or is equivalent, constructed and op-erating as and for the purpose herein set forth. Seventh, I claim dividing the rear portion of the stock longitudin-and operating as and for the purpose of constructing a magazine ind operating as a shown and described. Eighth, I claim dividing the rear portion of the stock longitudin-therein, and obtaining access to the same, substantially as and for the purpose herein set forth. 1944.—Feathering Paddle Wheel\_Menley Daddie

1,944.—Feathering Paddle Wheel.—Manley Paddle Wheel Company, New York City. Patented June

Wheel Company, New York City. Patented June 24, 1862: We claim the combination and arrangement of the paddle of a feathering paddle wheel, with its rock shaft, and the frame work of the paddle wheel, in such manner that the center of the paddle is situated in such position that the pressure at the end of the pad-dle adjacent to the feathering mechanism is divided equally, or sub-stantially so, between the adjacent side frame of the paddle whee and the irame of the feathering mechanism, substantially as se forth.

945.—Mode of Preparing Concentrated Food.—John H. Schenck, St. Louis, Mo. Patented Nov. 22, 1864. Antedated July 15, 1863: First, I claim the process hereiu described of preparing, cooking, essicating and pressing conce trated food, substantially as set 1.945

descicating and pressing curve server server for the compound herein de-Second, I claim as a new article of food the compound herein de-scribed, nam ely, a compound of corn, oats and barley, when cooked by steam or otherwise, dessicated, and pressed of uppressed. by steam or otherwise. dessicated, and pressed or unpressed. 1,946.—Barrel Machinery.—Wm. Trapp, Jr., Elmira, N. Y. Patented Oct. 1, 1845. Reissued March 10, 1849. and extended: I claim, First, The combination of the slide rest, k, guided in the manner set forth with the tool. L, for turning off the cask, construct-ed and arranged in the manner set forth. Second, The combination of the cylinder, E, open at both ends, so that both ends of the cask may be worked off without changing with the ring chucks, 0, for fastening the cask into the cylinder, and with the tools herein describe. I or chanfering and howeling. Third, The cruzing tool, V, with the changeable face plate, w, as herein set forth. Fourth, The combination of the stock, 1, cutter, P, made adjust able, and the gauge plate, 12, constituting the tool for turning and sented.

Fifth, J likewise claim the peculiar construction of the tool for howeling the cask, substantially as described. Sixth, Also, the peculiar construction of the tool for chamfering the end of the barrel, as above described.