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* Circulars eiving full particulars of the mode of applying for patents, size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the Scientific American, New York.

Washing Madbines—John Allen, of Galena, Md.: What I claim is so dressine with zie-zag ribs, F F the bottom of the tub and under surface of the rubbine disk, that the approximating angles, b, of the ribs, F, of the disk and tub shall form rhomboidal figures wherein the clothes are subjected to an anguar squeezing and oblique rubbing action, and the approximating knuckle or wedged shaped ends, a, of said ancles shall, when the motion of the disk is reversed, alter the rhomboidal spaces and pummel and loosen un the clothes, so as to allow a fresh-unply of cleansing water to circulate through them, and thus preparethem for a succeeding an-ular squeezing and oblique rubbing action, substantially as and for the purposes set forth.

[An engraving and description of this invention will be published in our columns in a few weeks.]

WASHING MACHINE—Wm. T. Armstrong, of Sandwich, Ill.: I claim the combination of the rubber and the slide, F, with the stationary shaft, G, substantially as and for the purposes set forth.

REVOLVING FIREARM—Fordyce Beals, of New Haven, Coon,: What I claim is constructing, applying and arranging the canter pin, F, and the ramer lever, H, substantially as described, so that the former is locked in place by the latter, when the latter is close to the barrel, and that the former is permitted to be withdrawn by bringing the latter to a position in which the rammer will not interfere with the cylinder.

(This invention relates to that kind of revolver, the axis of whose rotating many-chambered cylinder is arranged parallel with the bore of the barrel. It consists in so constructing, applying and arranging the center pin on which the cylinder rotates, and the lever which operates the rammer, that the pin is secured in place by a shoulder provided for the purpose on the said lever, when the lever is brought to a position close under the barrel, and that the pin can be withdrawn to allow the cylinder to be taken out when the lever is moved down to a position not far enough from the barrel to let the rammer interfere with the cylinder. 1

LADIES' HOOP SKIRTS—Samuel Beberdy, of Philadelphia, Pa.: I claim the combination of a spiral stay, B, with the fabric which constitutes a lady's skirt, when said stay is formed by winding a flexible strip or rod made of one piece or a series of pieces spliced or united together, continuously round the skirt from the bottom to the top of the body of the same, substantially as and for the purposes set forth.

By thus making skirts of one stay, the clasps which are used at the meeting ends of the ordinary circle stays are dispensed with, the cost of manufaturing a series of stays and applying clasps to the same greatly reduced, and the symmetrical set of a lady's dress greatly added to, by the spiral stay, because one spiral supports another throughout the skirt, and consequently while in the act of sitting every part of the skirt yields or winds spirally round the body in a manner to contract the diameters of the spirals, and elongate the skirt, and thus allow the wearer to sit comfortably, and with a consciousness that herdress pre sents a rounding or symmetrical appearance on all

JOINTS FOR T-RAILS—E. U. Benedict, of Horicon, Wis: I claim the combination of the rails with the side plates, BB, by means of the slots, a a, in the plates, the recesses, b b, in the bases of the rails, the gibs, C C C? and the keys, D D D, tho whole applied and operating substantially as set forth.

And I also claim forming the gib, U, applied at the juncture of the rail, with the downward rectangular projection, g, to serve as a stay between the plates, substantially as set forth.

[The adjacent ends of T-rails are united by means of two upright plates which are applied one on each side of the rails, and slotted to receive portions of the rails left projecting between notches cut in the base. The notches receive portions of the plates between the slots, and the rails and plates being secured together by gibs and keys passing through the plates n such a manner as to support the ends of the rails.]

MANUFACTURE OF SKIRTING MATERIAL—Ernest Bredt, of New York City: I claim as a new article of manufacture the looped fabric described, having loops formed in itat intervals by combining the loop-forming material with the web in the process of weaving, substantially as set forth.

ENDLESS SECTIONAL SAWING MACHINE—Harvey Brown, of New York City: I claim, first, The form and manner of constructing the sections of my saw, substantially as set forth.

Second, I claim the mode of inserting the teeth in the saw in the manner set forth.

Third, I claim the guide plate, E, constructed and arranged as described, when used in connection with the saw as set forth.

Saw Filze—A. H. Burdine, of Chulahoma, Miss.: I claim, first, A file, F, constructed spirally on a revolving axis, n, so that a space, i, exists between the two ends of the spiral or screw thread constituting the file, substantially as and for the purposes set forth. Second. The combination of one or two of the ahove specified files, F, with two conical rotating files, G G, in a machine of the character specified, substantially as and for the purposes set forth.

other page.] other page.]

PRINTING PRESSES—J. A. Campbell, of New Orleans,
La.: I claim the teeth placed on a portion of the perimeter of the roller, M, for the purpose of pushing the card through the opening shove the perpendicular grooves, c, by the operation of these teeth on the surface presented by the front card of the pack, in combination with the rollers, ff, substantially as specified.

Also, The adjustable plates, g, as specified for the purpose of regulating the opening through which the cards have to pass, to the thickness of the card.

Also, The combination of the stationary arm, T, ball and socket, Z, rod, U, short arm, V, and the working joint. Y, for the purpose of giving the inking cylinder a lateral motion.

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1900 m

LANTERN ATTACHMENT TO CAPS—J. C. Cary, of New York City: I am aware that lanterns have been previously attached to caps. Hunters use such a device in deer shooting, and miners also attachlights to their hats. I do not claim broadly, therefore, the simple combination of a cap and lantern irrespective of the construction and adaption of the parts, as described. But I claim the lantern, C. constructed as shown, to wit: the fountain, C, and lamp, D, connected by the tube, f, and enclosed within the case, d', which is provided with the handle or bail, and straps, i j, for the purpose of being attached to the cap, A.

This is a convenient invention for railroad conductors, firemen and others; it is a lantern attached to a cap, so that it can be worn on the head, and where it will burn as well, shedding light around, as if held in the hand.1

RAILROAD CAR COUPLING—J. W. Corey, of Craw-for isville, Ind.: I claim the arrangement and combin-ation of the hinged coupling hook, Be, slotted con-nected link, Cd, and double inclined plane, D, sub-stantially as and for the purposes set forth.

MOLDS FOR MAKING WARP DEBSER GUIDES OF GLASS OR OTHER PLASTIC ANTI-CORROSIVE MATERIAL—Alfred B. Corey, of Franklin, Coun.: What I claim is my improved mold as made with plunger cavities, e e, of the kind described, in its bed plate, B, a body or body and fisnce matrix, d, a removable plunger golde, C, or its equivalent, and a plunger, D, provided with a series of projections or cores, g, the whole being combined and arranged substantially in manner and for the purpose as described.

Wart Dressing Guides—A. B. Corey, of Franklin, Conn.: I claim a new or improved manufacture of warp dresser guides made of glass or its equivalent, and by midding it on smooth cores and subsequently reducing the plate or the bars or projections made by the cores, substantially as described.

I also claim making a warp dresser guide in several separate sections, A. Combined and applied in one frame, essentially as and for the purpose explained.

Frame, essentially as and for the purpose explained.

STRAM HAMMER—Patrick Danvers, of New York
City: I do not claim the combination of the reciprocating cylinder and stationary piston, as that constitutes
what is known as the "Condie Steam Hammer," nor do
I claim attaching the hammer to a piston working in a
stationary cylinder, as that constitutes "Nasmyth's
Steam Hammer."

But I claim the combination with the reciprocating
cylinder or ram, 3, which constitutes or has attached
to it the hammer block, and the stationary piston, 5, of
the piston, 4, and the external steam cylinder, 2, provided with a proper system of "valves, the whole operating substantially as specified.

For more information regarding this invention, see

[For more information regarding this invention, see another column.]

SHINGLE MACHINE—Augustus Day, of Detroit, Mich.: I claim, first, The butting or squaring knife, V, operated by the curved arms, T, and used in connection with the stationary knife, V, and adjusting clamps, W.

Second, The combination of the riving knife, E, jointing cutters, H H, planers, M M, and Z Z, and butting or aquaring knives, V V, the whole being arranged to operate as and for the purpose set forth.

[By the employment of a riving knife jointing cutters, planers, and a squaring knife, arranged and operated in connection with retaining dogs, and other concomitant parts, the various operations of splitting, jointing, planing and squaring are all performed by the one machine and at one operation. 1

the one machine and at one operation.]

Mold Plow—Adam Defenbaugh, of Walnut Run, Ohio; I am aware that underground ditching plows have been used, but they have not been sufficiently under the control of the attendant to make them of much use, beside they only make a ditch parallel with the surface of the ground, while mine will form a ditch with a regular grade or descent.

I claim so hanging the beam, D, wheels, C C, and underground plow, H, to each other as that the conductor of the machine may, at any time, without seeing the plow, raise and lower it so that the ditch shall bave a regular descent regardless of the undulations of the ground, underneath which it is formed, and over which the plow passes.

the plow passes.

I also claim, in combination with the underground
plow, the scoring wheel, m, for forming a secondary
trench in the bottom of the ditch for the purposeset
forth, and the friction rollers for relieving

TELEGRAPH INSULATORS—M. G. Farmer, of Salem, Mass., and J. M. Batchelder, of Cambridge, Mass.: We claim the iron wire supporter or hook in combination with a screw insulator made of hard india-rubber, and attached to the hook or shank, in the manner described.

COMBINATION OF A GOVERNOE WITH A SLIDE VALVE—Richard Gornall, of Baltimore, Md.: I do not limit myself to any particular character of taper steam ports, as various forms of taper ports might be made to answer the end in view. nor do I limit the use of my invention to flat surfaced slide valves, as it can be applied in connection with a cylinder valve or a valve forming part of a circle with equal advantage.

I claim, first, The combination in the manner substantially as specified, of the governor with a slide valve, which is constructed, arranged and operating as specified for the purposes set forth.

Second, Giving the crank-pin, F, by which the rock shaft, D, is operated, a flaring or V-shape, in combination with the oblique or bevel ends, 4, of the slide valve and the enlarged slot, c, of the connecting rod, I, substantially as and for the purposes set forth.

This invention provides an exceedingly simple and

This invention provides an exceedingly simple and ffective automatic cut-off dispensing with the complicated arrangement of lifters, cams and connections used in other cut-offs which have preceded it. It also ensures the working of the valve with a 'lead' just the same as it would were it not arranged to act as a cutoff. We regard this as an invention which exhibits ingenuity and utility.]

ROTARY STRAM ENGINE—John Harthan and Ezra Harthan, of Timbersbrook, England. Patented in England Jan. 26, 1858: We are aware that totatory enginea, consisting of wheels having a number of projections formed or fitted upon their peripheries and actuated by the impingment of steam or air again t such peripheral projections or chambers, have long been peripheral projections or chambers, have long been known in this country, and therefore we lay no claim to the principle of such arrangement. We may also observe that we do not confine or restrict ourselves to the precise details or arrangements which we have had occasion to describe or refer to as variations may be made therefrom without deviating from the principles or main features of our said invention.

But we claim first. The avatem or mode of obtaining

or main features of our said invention.

But we claim, first, The system or mode of obtaining motive power by causing steam or air to inpinge upon a series of chambers with curved bottoms arranged around a wheel at or near the periphery thereof, as described.

Second, The general constructions and arrangements of machinery or apparatus for obtaining motive power, as described.

MAGBINE FOR CUTTING DOVETAILS—T. E. King, A. King and E. King, of Cherry Valley, Obio: We claim the parts shown in Figs. 4, 5, 7 and 8, arranged and operating as described for the purpose of cutting the mortises or gains in the drawer fronts.

We also claim the instruments shown in Figs, 9 and 10, arranged and operating as specified, for the purpose of cutting the end pieces of drawers, substantially as set forth, these several devices being arranged to operate conjointly in the manner and for the purpose set forth.

Horse Powers—G. Hely, of Rochester, Wis. : I do not claim the mere connecting the several teams, as

But I claim the combination of the sliding levers, D, and the loose coupling bar, E, with the draft chains, substantially as set forth.

GATE HINGE—T. Hendrick, of Clyde, N. Y.: I claim the employment of an angle plate having an oblong slot cut vertically through its horizontal angle in com-bination with a plate which has the pintle or axial pin of the hinge on its lower edge, and a shifting projec-tion on each of its side edges, substantially as and for the purposes set forth.

This simple invention provides a hinge which will cost but little if any more than the ordinary hook and eye hinge, and yet will be capable, when used in connection with an ordinary hook and eye or other hinge, of allowing the gate to open hoth ways or inward and outward, and will invariably cause the gate to close automatically, or not allow it to remain stationarvia any other but a closed condition unless held so by a cord or hook.]

Gas Burness—L. E. Hicks, of New York City: I claim, in the construction of gas burners which have caps made with a crown concave internally applied to them, making the outer surface of the crown of the cap flat or nearly flat and the orifice, d, through which the gas escapes, of circular form horizontally and with its edge curved in the path of two vertical circles as delineated in the sectional view of the drawing for the purposes set forth.

[A notice of this improvement will be found in an other column.]

Bullding Walls under Water—Wm. H, Horstmann of New York City: I claim, first, The sack or compartment formed by cloth or some equivalent thereof to produce slack water in a current or other movable water, and protect the current from being washed away and wasted before it is hardened as fully set forth.

I also claim, in combination with a flexible inclosure the panels as above specified, and supporting the same by spiles in the manner and for the purposes set forth. I also claim the cement feeder, constructed and arranged substantially as and for the purpose specified.

CUTTING APPARATUS FOR HARVESTERS—Charles owell, of Cleveland, Ohio : Disclaiming the construc-HOWEL, Of Cleveland, Ohio: Disclaiming the construction of guard fingers as patented by Cyril Wagner, June 24, 1056, I claim, first, A finger formed with a frog shaped concavity on the under side of the knife, having outlets on its sides in front of the finger bar in the manner and for the purposes set forth.

Second, A sickle or knife having a series of curved openings, 1, or their equivalents, tormed on its rear, and underside when used in connection with guard fingers provided with a D-shaped rest, K, or its equivalent, the whole being arranged, constructed and operated in relation to each other in the manner and for the purposes substantially as set forth.

Heating Apparatus for the state of the control of the co

HEATING APPARATUS FOR THE MANUFACTURE OF CRMENTED SOLE SHOES—Jacob Jenkins, of Charlestown, Mass.: I claim an improved heating apparatus for the manufacture of cemented sole shoes, consisting of the box, A, provided with door, B, glass front, b, deflector, f, as described, openings, d, and lamp, C, or its equivalent for heating, arranged and operating substantially as and for the purpose set forth.

CHUEN—Daniel Johnson, of New York City: I claim the employment of two or more rollers when placed horizontal, and with their peripheries touching or nearly touching one another, in combination with a revolving dasher, which is arranged underneath said rollers and in the same box or chamber with the same, substantially as and for the purposes set forth.

[This invention consists in the employment of two or more rollers placed horizontally with their peripheries nearly touching one another in combination with a revolving dasher, which is arranged underneath the rollers in the same box. By this means it is though butter can be produced very quickly, and left in a sweet and palatable state.]

RAILBOAD CAR COUPLINGS—C. P. Kenyon, of Wilson, N. C.: I claim the combination of the grooves, i, supporting ridges, C., lateral grooves, V, pusher, s, and block, S, arranged and operating substantially as described.

scribed.

Second, I claim adjusting the coupling to suit cars
with platforms of different hights by means of the slide,
E, and a bolt passing through the holes, F, arranged
and operating substantially as described.

Door Lock—Jacob Kinzer, of Pittsburg Pa.: I claim the use of a plate on the inside of a lock, which, by the insertion of the key, is moved to the other side of the lock and closes the opposite key hole, substantially as described.

I also claim the use of said plate upon which to raise or form circles or segments, wards or pins, or their equivalents, which correspond to the formation or changes of the key, thereby facilitating and cheapening the manufacture of the lock, substantially as described.

seribed.

Bullet Machine—J. A. Knight, of St. Louis, Mo.: I do not claim the combination of the stationary and swinging mold bars.

But I claim, first, Arranging the movable mold bars, so that in opening the molds they move not only away from the stationary mold bar, but to some extent in a direction transverse to the said stationary bars as set forth, and illustrated in Fig. 1, to produce the dragging action described, for the purpose of loosening the bullets from both parts of the molds.

Second, Arranging the said swinging mold bars between center screws, II, applied in such manner as to provide for their adjustment longitudinally to obtain a perfect registration of the two halves of the several molds.

[A notice of this improvement will be found in an other column. 1

MACHINES FOR WORKING CLAY—Henry Leguay, of St. Louis, Mo.: I claim as my invention, in mills or grinding gears for grinding clay or other substances, making openings and valves substantially as described, in the spaces between the teeth in one or both gears to receive and hold the clay or substance ground, substan-tially as described.

tially as described.

I also claim, in combination with the grinding gears, the molding tube, when these parts are constructed and arranged for joint operation, substantially as described.

MACHINE FOR NOTCHING AND TRIMMING HOOPS—Sanford Littlefield, of West Troy, N. Y., I do not claim notching the hoop by the cutter, D, moving its frame. But I claim the relative arrangement of the cutters, D, and E, moving in ways rectiliniarly and obliquely, whereby the notch is cut and trimmed in one operation, a described and set forth.

a described and set forth.

CUTTING AND FINISHING THE LOOKS OF WOODEN HOOPS—Hiram Litteljohn, of Troy, N. Y.: I claim, first, the two separate knives, A B, when arranged together with a suitable bed, C, substantially as described, for use, in cutting the locks of wooden hoops. I also claim the knife, D, when arranged in combination with the knives, A B, or their substitute, and the bed, C, substantially as described, for "barking" the lock while the hoop remains in the same place on the bed data it occupies during the cutting of the lock. I also claim the knife, E, when arranged in combination with the knives, A B, or their substitute, and the bed, C, substantially as set forth for trimming the lock while the hoop is in the same place that it occupied during the cutting of the lock.

COATING ELECTROTYPE MOLDS—Henry Lovejoy and Robert Wheeler, of Brooklyn, N. Y.: We do not claim operating a brush by mechanical means to coat electrotype molds with coatine material.

But we claim, first, Suspending the brush bar, I, by the crank, J, at one end, and attaching it to and operating it by the crank of the crank shat, E, at the other end, in the manner and for the purpose set forth. Second, The combination of the brush, H, and bed, C, with the blower S, and wind chest, V, in the manner and for the purpose described.

VALVE COOK.—J. C. Macdonald, of Cincinnati, Ohio: I do not claim the guide, g, nor the valve, B, nor the screw on the stem, F, for the operating said valve, for these were secured to me by Letters Patent previously

referred to.

But I claim the collar, g', on the valve stem, F, the guide cap, D, spring, i, head, G, connected with the stem, F, by the haudle. H, and screw cap, E, combined and arranged substantially as and for the purpose set footh.

The object of this invention is to dispense with the use of packing around the stem of the valve, and still leave the cock perfectly steam and water tight. The invention is applicable to all valve cocks, but is more especiallyadapted to one which was patented by this inventor, Aug. 11, 1857.]

BEDSTEAD FASTENING—I. M. May, of Anderson, Ind.: do not claim irrespective of construction and the I do not claim irrespective of construction and the special adaption shown and described, the employment or use of pins fitting in slots for the purpose of secu-ing or connecting together the posts and rails of a bed-stead, for various forms of such device have been used

for the purpose.

But I claim the combination of the plates, D E, secured respectively to the post, A, and rails, B C, and provided with the oblique slots, ff, and pins, g g, substantially as and for the purpose set forth.

This invention consists in constructing the fastening n such a way that when it is applied to a bedstead it not only connects the side rails to the posts but the end rails also, and dispenses with the use of mortises and tenons, thereby considerably diminishing the cost of construction of bedsteads, and adding to their strength and durability.]

TENONING MACHINE—John McCreary, of Delaware, Ohio: Having fully described the nature of my inven-tion and being aware that many kinds of machines have been invented and used by others for forming round tenons, I therefore do not claim forming such

But I claim the construction and arrangement of the bit-holders, as set forth.
I also claim the manner of applying the set screw, as

HEMP BREAKS—H. D. McGeorge, of Morgantown, Vs.: I claim breaking and cleaning hemp, flax, &c., by a combination of vibrating blades, di and station-iry blades, e k, and clearing devices, f n, acting in oncert with them, the whole being arranged and op-erating substantially in the manner set forth.

MEAT CUTTES—M. Newman, of Oak Hill, N. Y.: I claim, first, In combination with the cutters, the two branched rack or comb for holding the material against the cutter, substantially as set forth.

I also claim holding the rack or comb in its recess by the clamping of the two parts of the shell together, substantially as and for the purpose described.

I also claim the manner of holding and arranging the screw feeder, H, on the shaft, so that a portion of the section of the screw shall be on said shaft, as shown and represented, and for the purpose set forth. TEMPLES FOR LOOMS—R. Pilson, of Laurel, Md. claim the construction of temples for looms, whereix

claim the construction of temples for looms, wherein is employed an adjustable extension compound connecting bar or rod composed of the spindle bars or sections, m 2 m 2 m n, and the splice lengths, o o o o, the detachable independent tubular sheaths, PP q r s, Fig, 3; the sliding yielding brackets or bearings, 1 H, JJ J, spring holders, b b, and springs, e e e; the whole operated as shown, and whereby a double yielding action of the temples is broughtabout, and for the purposes substantially as set forth and described.

HARVSTERS—Isaac Reamer and Henry Miller, of Conrad's Store, Va.: I claim, first, Arranging the knife, E, on springs, F, and with its cutting edge slightly elevated above its rear edges, substantially as and for the purposes set forth.

Second, The employment of an auxiliary adjustable reel, N, in combination with the main reel, M, when the whole is constructed, arranged and operated as and for the purposes described.

CLASPS FOR COTTON BALE HOOPS—A. C. Richard, of Newtown, Conn.: I claim the use of the three rings, A, and C C, in combination with the hoop, B. as a cheap and convenient cotton bale hoop, substantially as described.

coribed.

Cooking Stoves.—Apollos Richmond, of Brooklyn, Conn.: I am aware that a stove was patented to J. Curtis, Jan. 27, 1843, in which the oven projects forward in a rectangular form, having the boiler holes arranged around it, but consider my improvement as differing from said stove, since my oven projects forward in a curved form, and since my fire chamber is also of a curved shape, while that of Curtis' stove is rectangular. I do not, however, lay any claim to either the form of oven or fire chamber aspearately, or to such construction as embraced in Curtis' stove.

But I claim extending the oven forward in a curved form and arranging around it the boiler holes as set forth in combination with the curved fire chamber, the whole being constructed and operated as described for the purposes set forth.

Bed Botton — Russell of Otselic N. V. I claim.

BED BOTTOM—F. Russell, of Otselic, N. Y.: I claim the combination and arrangement of the rods, 2 and 3, with the wires, 5, the bolts, 4, in the rails, 1, substan-tially as and for the purposes specified.

Spring Balances in Combination with a Knize-George H. Smith, of Glenwood, Iowa: I do not claim the knife.

Nor do I claim in the abstract, or when separately considered, a spring balance.

But I claim as a new and useful article of manufacture, a knife having a spring balance inserted in its handle, as and for the purpose set forth.

[In the handle of a butcher's knife this inventor meat or otherwise, can be cut and weighed with little trouble, and without the incruvenience of having continually to be moving to and from the scales.]

Lanterns—Stillman C. Spaulding, of Rutland, Vt.: I am aware that patents have been already granted for attaching guards to lanterns without solder, and also for constructing the corner-pieces so as to hold the glass sides without solder, and I disclaim these as any part of my invention.

glass sides without solder, and I disclaim these as any part of my invention.

But I claim, first, Constructing a lantern by folding the edges of the several parts over wire frames, as described, so that it can be compressed and packed in a small space on removing the glass sides, and in the way set forth, and so that solder is not needed to secure the pieces composing the top and bottom.

Second, The use or a coiled wire in the manner mentioned, to retain the glass sides in their place.

Third, Attaching the lamp of a lantern to a hinged bottom, and connecting the latter to a spring in the top, so as to keep the lamp securely in its place, when in ordinary use, yet admit of ready access to it, as described.

CORN HUSKERS—N. T. Spear, of Boston, Mass.: I laim the com ination and arrangement of the toothed



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beveled wheel, B, provided with one or more faces, with the smooth conical rollers. D D, one or more, and boards; E, when these several parts are united together and arranged for joint operation, substantially in the manner and for the purpose set forth.

[This invention consists in the use of a ro'ating beveled face wheel armed with teet's and used in connection with conical taper rollers, one or more, having journals fitted in yielding bearings, and arranged in such relation with the wheel that the ears of corn are allowed to descend by their own gravity down the "bite" or angle formed by the contact of the wheel and rollers, and the husks stripped from them in an expeditious and perfect manner..]

expeditious and perfect manner.]

BREECH-LOADING FIERAEM—E. T. Starr, of New York City: I do not wish to be understood as limiting myself to the special construction of the parts, as for mal changes may be made, such as the substitution of equivalents having the same mode of operation.

I claim opening and closing the rear end of the barrel, to insert and inclose the oharge by a plate turning on an axis below, and in the plane of the tranface of the barrel, substantially as specified, when this is connected and combined with a wedge, or its equivalent, operated by a lever below, substantially as specified, when this is connected and combined with a wedge, or its equivalent, operated by a lever below, substantially as specified, so that in the act of drawing out the wedge to Ilberate the breech plate, the rear end of the barrel shall be opened to receive a charge, and by the act of lifting or forcing up the wedge the charge shall be inclosed, and the breech piece secured, while at the same time all the injurious effects of expansion and contraction and of fouling are avoided, as set forth.

Comensation Straw Value—Robert Stewart, of El-

COMBINATION STEAM VALVE—Robert Stewart, of Elmira, N. Y.: I claim the valve, e, with the heads, e'', as guides or bearings, fitting in chamber, g', in combination with the outer chambers, g, and steam head, B, against which valve, e, is pressed up, forming a steam joint op rating as a self-adjusting valve, operating as described, and for the purposes set forth.

Making Pliess—Chester W. Sykes, of New York City: I claim connecting the jaws, C, of the pliers or pincers to the portions of the handles, A, above and below the center pin or fulcrum, B, upon which they move by pins, D D'. at points diagonal with each other, and at equal distances therefrom, the lower set of the said pins, D', being inserted and allowed to traverse (with the opening and closing of the handles and jaws) in longitudinal slots, E, in the lower parts of the said jaws, C, substantially in the manner and for the purpose described.

[The jaws of these pliers are connected to the handles by pins, arranged diagonally with each other, and at equal distances from the center pin on which the handles move; one set of connecting pins move in parallel slots, so that the jaws are opened and closed parallel with each other, and take a more firm grip of the object grasped by them than if they opened and closed upon a fixed center pin, as heretofore.]

GATE—William Tobey, of Naples, N. Y.: I claim opening and closing the gate by the use of the parallel pivoted levers. J D, when arranged in the manner and for the purposes set forth.

for the purposes set forth.

BEDSTEAD— William S. Todd, of Mechanicsville, Iowa: I claim first, Attaching the ends of the side rails D D', of the bedstead, to the foot and head posts, B B', by the but hinges, E E', arranged in reverse positions with each other, so as to enable the said side rails and the head and foot rails to be foldea together almost parallel with each other, in the manner and for the purpose described.

Second, I also claim the combination of the right-angled brace or rod, I, groove, L, in which it traverses, and turning winged or cam shafts, M, for disengag ng the right-angled end of the said rod from the openings in the projections on the inner sides of the side rails, substantially as described.

[The head and foot posts are connected to the horizontal side rails by hinges, those on each side rail being arranged in reverse positions to each other, to enable the bed to be folded together to facilitate its removal from place to place. The sacking is formed of cords, which admits of this movement of the posts and foot posts are retained rigidly rectangular by pins pro-

perly applied.]

PERNITIGO PEESS—Ervin B. Tripp, of New York City I do not claim producing a printed impression from type attached to and revolving with a type cylinder. But I claim, first. The employment in connection with the type cylinder, D, of a cylinder, or rotary printing press, of a flattened plate or type bed, H, in which the type to produce the printed impression upon the paper are placed, which plate or type bed is revolved with that cylinder, and is so connected with and attached to it as to have the face of the type contained in it move over the impression roller, I in the arc of a circle, as and for the purposes set forth. Second, The feeding roll, L, operated by a positive motion, as specified, when combined with and elevated and depressed by the arms, M, and cams, N, in the manner and for the purpose described.

Third, The feeding guide, o, operated in connection with the feeding roll, L, as and for the purpose set forth.

POSTABLE FIELD FENCE—Archibald B, and Madison

PORTABLE FIELD FENCE—Archibald B. and Madison Vandemark. of Phelps, N. Y.: We claim the placing the locking batten, h, on the same side of the rails with the end batten, g, and its combination therewith, and with the locking batten, e, and end batten, f, and forming a lock, substantially as described, and for the purpose specified.

Mode of Filling Water Tanks at Railway Stations—Charles Weed, of Milledgeville, Ill.: I claim the combination and arrangement of the yielding track, B, with the compound levers, C g, connecting bars, E, or their equivalents, weighted segment lever, F, ratchet pinion, h, and gear wheels as required, for giving motion to pump lever, L, substantially in the manner and for the purpose set forth.

Sorew Cuttee—Thomas Whitaker of Cincinnati, Ohio: I am aware that the slot, h, the adjusting pin, Ohio: I am aware that the slot, h, the adjusting pin, I, the hook, I, and the lever, G, have been previously used in a similar connection for regulating and adjusting the cutters of a die head, and I therefore do not claim them as my invention.

claim them as my invention.

But I claim the combination of the shaft, E, the
sheaves, F F, the yokes, K K', and the guides, C C,
with the dies, D D, when arranged substantially as described, for the purposes set forth.

APPARATUS FOR RAISING SUNKEN VESSELS APPARATUS FOR RAISING SUNKEN VESSELS—Aldrings Windham, of New York City: I claim the construction, arrangement and combination of the rigid and elastic inflatable sir vessels, A and B. together constituting the raiser when so united, and so small as to be conveniently carried by any wessel which they can raise, essentially in the manner and for the purposes fally set forth.

forth.
I also claim the portable shoe, d, so constructed of wood and iron, or other material, as to be managable under water, so as to be easily applicable to the sunken vessel, to receive the cable for raising, and protect the vessel from ab.asion or jamming by the cable, essentially in the manner and for the purposes fully set

forth. I also claim the inflatable elastic stopper, L, so constructed as to be easily thrust through a leak or opening in the vessel, and afterwards inflated with air which stops the opening, so that the sunken vessel may be exhausted of water to assist its raising, essentially in the manner and for the purposes fully set forth.

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GUARD FINGERS FOR HARVESTERS—John W. Brokaw, (assignor to Warder, Broker & Child), of Springfield, Ohio: I do not claim, broadly, making the cap of har-vester guar d fingers of wrought or malleable iron with a base of cast iron.

a base of cast iron.

But I claim the peculiar construction of the cap, B, as described, when made of wrought or malleable iron, and connected to the cast iron base, A, and to the finger bar, in the manner and for the pirposes set forth,

MODE OF LAUNOHING VESSELS—Gordon Conklin (assignor to W. T. Conkling.) of Conklingville, N. Y.: I am aware that balls have been used for raising vessels on ways, and they have also been used an anti-friction devices in various ways.

I do not claim, broadly. therefore, the employment or use of balls, separately considered.

But I claim the runners, c, balls, a, and ways, A, combined and arranged substantially as and for the purpose set forth.

[The object of this invention is to facilitate the starting of a vessel on its ways, and thereby obviate the delayand embarrassment usually attending the launching of vessels, especially those of large dimensions. The invention consists in the employment or use of runners provided with bales, and used in connection with ways, whereby the desired end is attained by very simple and effective means.]

PRESSURE AND VACUUM VALVE-William Hardy and John Parkinson (assignors to themselves and Aaron Bates), of Philadelphia, Pa.: We claim the valve chamber, A. spring valve, B, and inner valve, E, with their respective openings and passages, when constructed and arranged in respect to each other, as and for the purpose set forth.

CAR SEATS AND COUCHES—Alexander M. Holmes (assignor to bimself and Albert G Purdy), of Eaton, N. Y.: I daim the combination and arrangement of the specific devices set forth, substantially as described for the purposes indicated.

SEWING MACHINES—George W. Hubbard, (assignor to himself, Walter Hubbard, W. L. Bradley, and N. L. Bradley, of Meriden, Conn.; I do not claim the operation of the looper by means of the needle, as this was pat-nted by T. J. W. Robertson, May 23, 1855.
But I claim the looper composed of the fixed plate, c, the elastic plate, d', and the hook, i, applie to be operated by and to operate in combination with the needle, substantially as specified.

IT. is invention consists in a looper of novel construction, operated by the eye-pointed needle, and op-

erating in combination with it, to sew what is known as the "chain stitch" with a single thread.]

MACHINERY FOR DRAWING AND TWISTING WOOLJohn W. Kennedy and John T. Plummer, of Plainfield, Conn., assignors to themselves and John Batchelder, of Lisbon, Conn.: We do not claim the attachment
of the front drawing rollers in a rotating tube, through
which the roving passes, so as to give the twist betw-en
the back and front drawing rollers, as we are aware
that such application of the rollers has been made with
a different and less simple contrivance than we have
employed to produce the rotary motion of the so attached rollers.
But we claim first, The combination of the tubes. F

employed to produce the rotary motion of the tubes, F tached rollers.

But we claim first, The combination of the tubes, F and G, the toothed drawing rollers, and the convolute groove, h, the whole applied and operating substantially as described, to effect the draft and twist simultaneously, or either alone.

Second, Making the upper part of the frame which carries the back drawing rollers, and the rollers, or their equivalents, which carry the roving to be drawn and twisted, adjustable vertically, substantially as and for the purpose specified.

[A full description of this invention will be found on

STONE-HOLDING MACHINES—Eleazor B. Knight, (assignor to himself and Nathan Kellogg,) of Malden, N. Y.: I daim first. A box or holder, detachable from its guiding or supporting frame, and provided with set, and means as recited for holding stones or other substances to be operated upon in being rubbed or ground, and which can be adjusted to plain or beveled edges, and for angular pieces, as described.

Second, I claim the angular guides or standards, as arranged for keeping the box or holder in its proper position in relation to the rubbing bed.

Third, I also claim the adjustable rests or supports, A, for keeping the box or holder at any point desired, as set forth.

RAKING AND BINDING APPARATUS FOR HARVPSTEBS—Allen Sherwood (assignor to E. P. Senter, Albert Goss, and Daniel Woodworth), of Auburn, N. Y.: I claim the traversing the double rake made to rock in its supports, to bring its fingers into and out of action, and automatically fastened and released, substantially in the manner described, and for the purposes set forth. I also claim in combination with the fingers, t, for throwing the gathered gavel up into the concave, the arm, u, for carrying the binding wire up and over the sheat, and placing the wire in the slot of the twisting wheel, substantially as described.

I also claim in combination with the twisting wheel he sliding knife for cutting off the wire, substantially as described.

I also claim, in combination with the cutter beautiful to the substantially as described. RAKING AND BINDING APPARATUS FOR HARVESTERS

I also claim, in combination with the cutter bar and its stud, the cam, 10, for the purposeof causing the cutter to act, regardless of the direction in which the shaft that carries the cam turns, substantially as de-

scribed.

I also claim in combination with the wire carrier and Ridrs, yy, a twisting wheel, made and operated substantially as described.

I also claim forming a knot or enlargement on the end of the wire, behind where it is cut off by the cutter, by twisting that portion off by the means substantially as described, said twist preventing the end from being drawn through the slot of the twisting wheel, as set forth.

PIN-STICKING MACHINE—Cornelius W. Van Vliet, assignor to the New England Pin Co.), of Winsted, John.: I distinctly disclaim. the punches or drivers as such, as they have been well-known for half a cen-

as such, as they have been well-known for han a contury.

I also distinctly disclaim the crimping bar as such, they having been patemed in England to Miles Berry in the year 1889, and in the United States to J. J. Howe, of Derby, in Connecticut, in the year 1843.

I also distinctly disclaim the sliding separator as such, as that was patented to J. B. Terry, assignee of Thomas W. H arvey, I anuary 3, 1854.

I also distinctly disclaim the channel ways as such, they having long been known and used for arranging screws, pins, &c.

I claim the combination of the series of channel ways with the sliding separator, when constructed and made to operate substantially as described.

Second, I claim the combination of the punches with the sliding separator, when constructed and arranged

to operate substantially as described.
Second, I claim the combination of the punches with the sliding separator, when constructed and arranged substantially as set forth.
Third, I claim the combination of the crimping bars, with the punches, sliding separator and channel ways, when constructed and arranged and made to produce the result, substantially as described.

HARROWS—Samuel White, of Penfield, Ohio, assignor to Harlow Herrick, of La Grange, Ohio: I claim the adjustable plates, C C, in combination with the revolving shatts, E E E', and in connection therewith the spur wheel, K, all operating in the manner and for the purpose specified

RE-ISSUES.

CARTRIDGES—Gilbert Smith, of Buttermilk Falls, N.
Dated June 30, 1857: I claim making the cartridge use, or at least the cylindrical portion thereof, of

Some impermeable and elastic substance, such as india rubber or gutta percha, substantially as described, so that it may be expanded laterally by the force of the explosion of the charge, and will contract itself after the explosion by its own inherent property.

SEWING MACHINES—T. J. W. Robertson, of New York City Dated May 22, 1855: I claim first, So arranging and operating a looper, or its equivalent, that it shall derive its motion from the movement of the needle, as described.

I also claim moving the looper up to and away from the needle, substantially in the manner specified.

SEWING MACHINES—James Harrison, Jr., of New YorkCity lateof Milwaukie. Wis. Dated April 11th, 1854: I claim clamping the thread of the needle at the downward or advancing movement of the needle at the downward or advancing movement of the needle by the means that are operated intermittingly, substantially as and for the purposes set forth.

I also claim combining with the clamping means, as described, a set acrew or its equivalent, for adjusting the clamping means, so that the tightening of the attleth may be regulated to the degree required.

I also claim the combination of the drag bar, T, attached to the shuttle, and containing the eye. J, through which the thread passes therefrom, the opening K, for throwing the said bar into position to prevent the delivery of the thread from the shuttle, and allowing the desired quantity to be given out.

I also claim the constructing the shuttle in two parts.

quantity to be given out.

I also claim the constructing the shuttle in two parts, viz. the shell and cap, of which the latter is inserted into and withdrawn from the former, as described.

CAST IRON BEDSTEAD-Philip Tabb, of New York NURSERY BOTTLE-Francis Kern, of Sandwich, Mass.

NOTE.—More than ONE-THIRD of the whole number of patents issued last week were secured through the Scientific American Patent Agency. The offices of Mesers Munn & Co. are situated at 198 Fulton street New York, and corner of F and Seventh streets, oppo site the Patent Office. Washington, D. C., where they will be happy to consult with inventors at all times No charge for consultation. The principal office is lo

cated in New York, where all communications should

be sent.

The Mad Stone.

"The Misses King, residing in this city, have in their possession one of these remarkable stones, one of which has effected a multitude of cures of hydrophobia. This mad stone resembles in form the kernel of an almond, is seven-eighths of an inch long, and a quarter of an inch thick; one of the principal sides is convex, and the other flat. Its color approaches jet black, with the appearance of a slight greenish tinge. In hardness, texture and luster it resembles cannel coal. It was brought about fifty years ago by the uncle of the estimable ladies in whose possession it now is, from Hindostan, a country where jugglers not unfrequently perform the feat of suffering themselves to be bitten by venomous reptiles, and immediately thereafter extract the virus by some infallible antidote in their possession."-Richmond Inquirer.

We are surprised that a journal of the respectable standing of the one from which we clip the above, should give credence to the old and long since exploded superstition in relation to the "mad stone." All the eastern countries are infested by a vagabond set of adventurers, who claim immunity from labor through the possession of some alleged charm or special supernatural visitation, and in consequence exact bheek from their credulous believers. The theory about this wonderful "mad stone" no doubt had its origin from some such source, and like the traditional superstition of there being luck in an old horseshoe, it is fervently believed in by numerous people, although at variance with common sense. There is nothing in the composition of this wonderful Indian stone mentioned of either a medicinal or curative character, and it will, therefore, no more effect a cure of hydrophobia than the twin hypothesis of tying an eel skin around the wrist will prevent the yellow jaundice. ----

Recent Patented Improvements.

The following inventions have been patented this week, as will be found by referring to our List of Claims ;-

FILING OLD COTTON GIN SAWS .- This invention consists in a file which forms one thread of a screw, and so constructed that it files the saw, and at the completion of each revolution of its own axis, feeds the saw round the balance of one tooth; thus all necessity for a feed motion is entirely dispensed with. The file is certainly a very ingenious, simple and per- Lisbon, Conn.

fect contrivance and is entirely different from the gin filer patented a few weeks ago by this inventor, A. H. Burdine, of Chulahoma, Miss.

STEAM HAMMER.—P. Danver, of New York, has patented a new steam hammer, the improvement of which consists in the employment in combination with that kind of steam hammer whose hammer block or ram forms part of a cylinder, working on a stationary piston, of an external stationary cylinder with a proper arrangement of valves on the ton. By this means the steam does not merely serve to elevate the movable cylinder with the ram attached, but its force is also exerted on the top to bring down the ram upon the substance to be hammered, with greater power than its own gravity alone would give. This is effected by admitting the steam between the srationary cylinder and the movable one, the latter acting as a piston to the former.

GAS BURNER.-The daily increase in, and extension of gas as an illuminating material, renders it highly desirable that every possible means should be taken to economize the light which it is capable of giving, or, in other words, we should ever try to obtain the greatest amount of light from the smallest amount of gas. As a very important step in this direction, Lucien E. Hicks. of New York, has invented a new gas burner, the remarkable simplicity of which, contrasted with its extraordinary results, somewhat astonisbes us. It is the common "fish-tail" burner, which, as every one knows, gives an excellent light, with a metal cap placed over it. The cap has a round hole in its top, a little larger than the two holes of the ordinary "fishtail "and by lighting this, ne rly one third more light is obtained than would be, were the cap removed and the "fish-tail itself lighted. Patents have also been secured in foreign countries.

Machine for Casting Bullets.—This improved machine is composed of one or more stationary and one or more swinging mold bars, arranged in pairs and containing the halves of a number of molds combined with a pouring sliding trough or plate, which constitues at the same time a series of cutters and with proper mechanism for operating the swinging bar or bars and pouring plate or trough. The invention consists in a certain arrangement of the centers of motion of the swinging mold bars, whereby as they swing away from the stationary mold bars to open the molds, the bullets are caused to be detached from the stationary and movable halves of their respective molds. It also consists in the arrangement of the swinging mold bars to swing between center screws so applied as to provide for their adjustment longitudinally in relation to their corresponding bars. J. A. Knight, of St. Louis, Mo., is the in-

MACHINERY FOR SPINNING WOOL .- J. W. Kennedy and John T. Plummer, of Plainfield, Conn., have invented some improvements in machines of this class, which consist firstly, in a novel combination of tubes and drawing rollers, and means of operating the rollers, by which the process of drawing and twisting can be performed simultaneously, or either of said processes separately, and by which, when the two processes are combined, great convenience is afforded for varying the relative degrees of draft and twist to suit various lengths and qualities of fiber. It also consists in making the whole of that part of a drawing and twisting or spinning frame, which carries the back drawing rollers and the rollers or their equivalents, on which the roving to be drawn and twisted or spun, is contained, adjustable vertically, to enable the distance between the back and front drawing rollers on both sides of a double frame to be regulated according to the length of staple, and vet preserve the proper relation between thus constructed is used in connection with the back drawing rollers and the roller which two conical files, so that while the depth of contains the roving. The inventors have the teeth is being cut, the sides of the same | taken out a patent in Eng.and, and assigned are being reduced to the proper shape. This part of the invention to John Batchelder. of