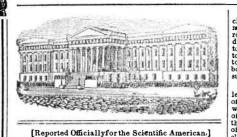
## Scientific American.



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LIST OF PATENT CLAIMS Issued from the United States Patent Office FOR THE WEEK ENDING JAN. 1, 1856.

BOTTOMS OF SHIPS AND OTHER VESSELS-Saml. W. Brown, of Lowell, Mass. I claim making the entire bot-tom and keel of ships and other vessels, of thick and con-tinuous plates of metal, for the united purposes of bottom and ballast, as set forth.

SHEET METAL BENDING-Reuben Brady, of New York City; 1 do not claim the concave bed and rollers, irres-pective of the arrangement described. I claim placing the upper roller,  $B_1$  in an adjustable or swinging frame,  $E_2$  and attaching the guide or feeding plates, G G, tosaid frame, when the above parts are used in connection, and operate conjointly with the perman-ent roller, A, and concave bed. D, for the purpose spe-cified.

[fhe nature of this invention consists in the employ ment of two rollers, one of which is placed in perma nent bearings, and the other i a swinging frame, to which the guide feeding plates are attached. A stationary concave bed is also employed, the points being so arranged as to bend the plates of sheet metal intocylindrical form for cans, &c. The chief point of novelty is a peculiar method of adjusting the concave bed, so that the diameter of the curve given to the metal may be changed at pleasure, and larger or smaller cans be produced.]

Coal Scurric cansol produced.] Coal Scurric Covers-Irah Chase, Jr., of Boston, Mass. I claim, first, hanging to the cover, B, a circular hoop, C, constructed substantially as descrited, in comu-nation, with the prop. D, and receiving hole, F, operating as set forth. Second, the arrangement by which the cover is fastened down, i.e., by making the projection, il, of the hoop, C, and the ear, G, operate as an automatic latch, substan-tialy as described.

BEE HIVES-G. H. Clarke, of Fast Washington, N. H. : Disclaiming the other devices described individually or combined, i claim the construction and arrangement of the hollow bars, D, in the manner and for the purposes set for the the hollo set forth.

FORM OF BUILDING BRICKS-Edgar Cockling, of Cin-cinnati, . . I disclaim forming bricks with hole-running verically through then, such having been proposed in the singhts patent of Caleb ditch. But I caim the brick, as described, having marginal ribs, de, skirning three sides, and a central rib, r, across the middle of the botom surface, or of the top and botom surfaces thereof, said ribs enclosing cavitos, b b', adapted for the resception of grouting, in combination with coving on the inner edge, affecting passage ior the grouting, from above to the cavities, b t', below the bricks, or devices substantially equivalent.

DISINFECTING FECAL MATTER—D. E. Coutaret, of Boston, Mass. : I claim the use of the ingredient named, for deodorizing fecuient or other decomposing organic matter, and converting said matter into a manure, as de-scribed.

scribed. STREET PAVING MACHINES—Thos. Davidson, Jr., of Kensington, Pa.: I do not claim, soparately, the rammers, T, operated by the lifting wheels, Q, for this is a well known device, and used in many cases, for pounding, crushing, etc. but I claim the rammors, T, operated by the lifting wheels, Q, in combination with the ratchets, W X, and pawls, h, arranged as showin, whereby the machine is more perform their work. I further claim the arrangement of the gearing, E C I, as shown, whereby the motive power employed to oper-ate the hammers, may, by adjusting the wheel, f, be em-ployed to drive the machine from place to place, when the rammers business his iness is the ramming down of

[A slow and tedious business is the ramming down of paving stones. Heretofore it has been done exclusively by hand, and has generally been regarded as a very severe species of labor. Mr. Davidson, in the above improve ment, proposes to use the giant power of steam instead of muscle to do the work. He provides a locomotive fur-nished at its rear end with a dozen or two of heavy rammers, quite similar to those in common use, arranged in line. 'The rammers are furnished with stout arms, behind which is a cylinder having corresponding projections When the cylinder revolves, the projections catch under the arms and lift the rammers, which then fall upon the stones by their own gravity. The operation is very rapid, and a machine, it is supposed, can be easily made capa-ble of doing the labor of fifty or one hundred men. The locomotive propels itself along the street as fast as it finishes the work.]

PLOWS-B. F. Avery, of Louisville, Ky.: I claim the lock joint, for holding the land side to the short landside and mold-board, the same consisting, minly, of a shaped projection, g, hook, n, and Hange, h, and their counter-parts, in the short landside. I also claim the ears or lugs. d d, cast on the inside of the mold-board, for the purpose of fastening the mold-board handle.

HARVESTERS-Lebbeus Barnes, of Islip Township, N. Y. I claim the application to the reciprocating cutter-bar of a moving machine, or reaper, of a spring or springs, driven by or operating in connection with the cutter, es-sentially as specified.

WATCH KEY-Morris Falkenan, of New York City, Morris Pollak and Solomon Wiener, of Hoboken, N. J.: We claim the key, 9, on the pipe, 3, pressed into the grouve, 1J, by the spring, 6, and sliding in said grouve, 1J, which is closed at its outer end, aci thereby causing said pipe to be turned by the case, compensating for wear, and also regulating the extent of motion of said pipe, as spe-clabor we claim the trigger piece S. combined with the cified. Also, we claim the trigger piece, S. combined with the stud spring, 6 to remove said stud from the hole, 7, and allow the pipe, 3, to be projected from the case, as speci-

BEG. BRECH-LOADING FIRE ARMS-L. H. Gibbs, of Troy, N. Y.: I claim hanging the barrel at som point between the two ends, on a sliding and turning joint, in combina-tion with the connecting of the said barrel, of the turning and sliding joint, by means of a joint link with a hand lev-er having its fulcrum in the stock or breech pin, as de-scribed, for the purpose specified. And I also claim, in combination with a sliding barrel, having the rear end thereof open, as described, the em-ployment of a fixed cylindrical to reech-pin, surrounded by an annular recess to receive the rounded edge of the barrel, as described and for the purpose specified.

barren, as described and for the purpose specifical. SEEDING MACHINES-J. G. Snyder, of Wheatfield, Pa. I claim so arranging the opening in the seeding plates, h #, that the machine can be converted from a drilling to a hill planting one, or vice versa, by changing the running direction of the movable plate, as set forth. Second. I do not claim a secondary box, or receptacle for the excess of grain, as this is not new. I claim an improvement upon the machine of Snyder & Young, patented Feb. 28, 1554, viz., the arrangement of the converseeding plate, h segmental opening. L. and seed receptacle or drawer, M. for admitting of the loca tion of said drawer outside of the hopper, and in more convenient position for the attendant, as set forth.

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and the second

ILLUMINATING GAS—N. Aulin, of Albany, N. Y.; I claim in the described, process of making gas, mixing the materials from which the gas is to be generated, with po-rous or coarsery divided substances, which are slow con-ductors of heat, a. dintroducing the mixing interaction ductors of heat, a. dintroducing the mixing interaction to compel the contents of the vessel, expelled by the heat, to escape at the low.rend, near to or in contact with the bottom of the retort, where the heat is the most inte...se, substantially as described.

substantially as described. MANUFACTURE OF HARS-JOS. Johnson, of New Or-leans, La. : I do not claim, in manufacturing hats, the use of soit water-proofgums , for the combinad, not the same of horized the same of the same set of the same set of the same of hair cloid, and consisting of thread, interwove, with slender strips of either whalebone, wildow, or other would ther, as these have been used before : nor do I claim to peculiar fabric descrited, as woven after the manner of hair cloid, and consisting of thread, interwove, with slender strips of either whalebone, wildow, or other would ther, as the application and use of the said tabric in the construction of hat Lodies, when the same is, cut from the united together and formed into hat bodies, sub-statistily as described, in combination with the turn-over around the square, for the purpose of pr serving the purpose of such support. Outsets prasses—Wm, C. Pancost, of Geneva Town-

CHEESE PRESSE-Wm. C. Pancost, of Geneva Town-ship, O. : I claim the spiral grooved whiel, A, in combi-nation with the self-adjusting wheel, E, as described, for the purpose set forth.

the purpose set forth. Horse Hav Rakes-Randal Pratt, of Marple Town-ship, Pa. : I claim hanging the prongs, or clearer, f' f', so that they can vibrate, and connecting taem to the d-vices which operate the teeth, so that they will be vibra-ted in an opposite direction, simultaneusly with the teeth, to clear them of the crop gathered, and press it to-gether on the ground, as set forth. Artacture Hammen Hakas to Shatrs-Charles Hammond, of Phisadelphia, Fa. : I claim the socket, J, with its projectil. gits, as a, and the wedge, D, arranged and employed, in connection with the head, A, and shaft, g, substantially in the maaner and for the purpose set forth

PADLOCKS—James Harrison, Jr., of Milwaukie, Wis-, l claim the com.i..ation of the shack.e., J., siding bolt, J., and r.d.s. o 0, when arranged as shown, and htted within a solid cedy, or case, A, constructed of suita.i.e mean, subsamiaity as described, where y a strong, duraties and burgiar proof-lock is obtained.

[It is generally less difficult to make a padlock safe, so far as it respects the lock-pick, than to make it secure against breakage. Nearly all the padlocks in use can be broken to pieces by one or two smart blows with a stout hammer. Not so, however, with the subject of the pres-ent putent. The moving parts are few, a.d these are so imbedded in solid metal that when combined the lock cannot Le smashed. Indeed, it has no shell, nor is there any interior empty cavity. Striking upon it is therefore equivalent to pounding on a thick solid block of cast steel —of which the lock is made. There is no key hole like those of ordinary padiocks, but a sort of wedge is used to open the lock. It would take a long head to pick the same. This invention appears to afford all the security of a bank safe lock, while the expense is far less, and the field for use far greater. Indeed, under this patent, doors and locks of all kinds, involving the same principles and

affording the same uncommon security, can be made. HANGING DOWLE DOORS-C. F. Brown, of New York City i claim con setting double doors by an endess chain, D, passing around pulleys. G. on the shafts or axes, b. of the doors, or uy genting, arranged in any proper way, so that as one door is opened or closed, the other will be moved simultaneously, in a similar or opposite direction, as described

Mr. Brown's improvement relates to what are known a double doors, or doors divided into two halves. It consists of a contrivance, whereby, when one door is opened, the other also moves. The two are connected together at their tops, by means of a belt which passes around pulleys secured to the doorsnear their joints with the jamb. Thus when one door moves, the other is also operated; by cross. ing the belt the two doors will move in the same direction, If the belt is not crossed, the doors will open and close in contrary directions. The improvement speaks for itself.]

contrary directions. The improvement speaks for itself.] EXCAVATING MICHINES-J. J. SAVATE, of New York (jty) I claim first, the conjecting of the scoop and st. if of excavating machines, to the swinging post, by vi, rato-ry eroscinating arms of links, H II, or their mechanical equivalents, in the man.er and or the purposes substan-tially as described and shown. Second, I claim the adjustable boom, G, in combina-tion with the excavating scoop and staff combined in the manner and for the purposes of an excavating machine, substantially assect forth. I also claim the combination of the vibrating or oscilla-ting connecting arms or wars, H II, of the scoop staff, with the rede chain, m. windiass, of Sarins q, and , and sheave pulley, K, for the purpose of at matically leading the scoop downwards, simultaneously with its forward modon, as described. Paperprint BANK Norses Sections Com-

Scop up will ware a single should be started at the store of the started at the store of the sto

BLADER OF MOWING MACHINES-Gustavns Stone, of Beloit, Wis. : I do not claim the invention of mowing maopming, J, bitween the backs, closed at the points, and widening out towards the bar. Mortrained to the index set of the set of the side, which renders the move-ing confined to the index set of the set of the side, which renders the move-their mechanical equivalents, for forming or cuting this described. Mass.: I claim, first, the movable cuting spurs, P, or their mechanical equivalents, for forming or cuting this described. Mass.: I claim affect the purpoes set forth. Second, i claim the double inverted feed rack X, in combination with the ratchet nut, G2, which is fixed to the serve can be moved by the rack, X, and rathis nut, G2, ing cutter, B2, so as to form the mortise in the wood, es-entially in the manner and for the purpoes set forth. Swenre M Agenze Obstiss-Abraham Straub of Mil-forme, so that two-

Sawirds in tailing and to the physical second. Sawirds Markets On Exists—Abraham Straub of Mil-ton, Pa.; I claim the combination of the divided toggie jointed shaft, with a hinged or adjusta. Je section of the frame, so that two or more saw frames, hung to and driven by asid shaft, may be worked in an inclined position to each other, but at right angles to the axis of motion, and so that the shaft, saw gutes, and their guides, as well as the sectional or hinged frame, may all be adjusted simulta-neously, and held in adjustment, substantially as de-scribed.

CORN HARVESTERS-Geo. W. N. Yost, of Port Gibson, Mass. : I claim the combination of the adjustable lifers, G G, finger board. d. revolving sickle-shaped knives B, rertical adjustable frame. F, and the adjustable platform, D, for the purpose of harvesting corn, when all are opera-ted and operating as set forth.

FILME SAWS-Jacob Erdle, of West Bloomfield, N. Y. I claim the use of the eccentric, e, and the various parts co-operating therewith, for raising the file, as it r. ceds : the lever, I, plate, H, and their co.nections, for feeding the saw through one or more teeth, and for regu-lating the depth of the cut, and its angle, all arranged and constructed substantially as shown.

BURNING WET FUEL-J. F. Manahan, of Lowell, Mass., Ant -dated July 9, 1355: I claim the method of producing f om wetvegetable m tier, a useful fuel, by mixing it with coal tar or other fluid biauminous matter of like character.

GAS CONKING STOVES—H. IS MUSTRAVE, of Cincinnati, O. I claim, in combinition with the concentrically ar-rangedgas deflector, b,  $\aleph c$ , the g is ormer, with lateral vents, and capible of vertical adjustment, or equivalent devices, for the purposes specified.

LOADING DIRT CARS.-Chas. Phillips, of Detroit, Mich. I claim the framing. A, with boxes, B, and aprons or leaves H, attached to it a. d. rr. uged substantially as described, for the purpose specified.

[the fore going improvement consists of a huge sort of a table, upon the top of which the dirt is thrown as fast as excavated, and then dropped into wa30ns and carts, which are backed up beneath the table to receive their loads. The invention is applicable principally to the excavation of banks and hills. An aperture is first dug in the side of the embankment, just large enough to admit the table. Its leaves form a firm floor, on to which the dirt is brought by scrapers, &c, from the sides and other parts of the emba kment. When a sufficient quantity has been acumulated, the table tops or leaves are tilted inwardly, and the dirt falls into the carts below. The leaves are then pushed up and fastened level again, and are ready for new loads. This looks like a very serviceable contrivance forsome localities.]

auto contrivance forsome localities.] OANDLESTICKS\_Abner Whiteley, of Springfield, O. : I do not claim a cup or uowl, hay ig three wirr springs ex-tending up from the lottom of the sinne, or a set of metal springs exitending up to support the candle end. But I claim, first, the socket, e e, having the openings, g, as de-crieed, and for the purpose set Ersth. Second, I claim the combination of the sock et, e e, open-ings, eg, and side, e c, as described, and for the purposes set forth.

CULTIVATING PLOWS-Wm. E. Wyche, of Brookvile, N.C.: I claim the arranging upon the shire of the plow of one or more vertical cutters, with a curved or inclined plate, I', at, or near the rear outside of the share, for the puryose or dividing the furrow slice vertically, and turn-ing the outer portion in towards the plow, as set forsh.

purpose of dividing the furrow siles, vertice, i.y. and turn-ing the outer portion in tow.rds the plow, as set forth. FIRE ARM-James H. Merrill, of Baltimore, Md., I I also ciaim the divident the plow as set forth. I also ciaim the divident the plow as set forth. I also ciaim the divident plate in connection with which the sutto, write, to seture the reach pin infinity in place while the tree ch is closed, in commination with which the sutto, write, to seture the treech pin firmity in place while the tree ch is closed, in commination with which the sutto, write, to seture the treech pin firmity in place while the tree ch is closed, in commination with means the preech is securely closed while the charge is capled, and the pin at the same time capable of being radiuy removed. I also claim the construction and arrangement of the breech pin, the lever for turning the same, the trough, the tree is the verte for the treech pin frough, the breech is and protect both the treech pin radiu the outbon while the trees is stantially as set firth. I also claim the construction and arrangement of the breech pin, the lever for turning the same, the trough, H, to reclive the charge and guide, the rammer, C, in such manner that the lever, when shut down upon the took, will dower and protect both the rammer and chang-ing channel, substantially as set firth.

PEG CUTTERS FOR BOOTS AND SHOES-S. B. Jones, of Baltimore, Md.. My claim is the described and shown mploymentof the spring, in connection with the curved surface of that end of the handle, double lever, upon which the float is pivoted, for the purpose of rendering the flat capalle of self-adaptation to the surfaces to which it is applied.

which it is applied. Weavers' HARNESS-G. L. Jenks, of Providence R. I. I claim, first, the described method of adapting the machine to the making of harness of different width, by the application of movable head pleces, a  $\alpha'$ , of different forms to the study of the range, and the application to the single depressers of a movable packing plece. 22, and blocks, 27, 25, or other variable guides, the whole oper-ating subtanially as described. Second, guide, the  $\alpha_c$  estations of the arms which carry the fingers, employed in forming the loops and knots to produce the evgs of the holders. Ly means of a pin, 37, working in a slot in a pate, 33, which is made variable by swinging on a stud, 35, whereay the movement or the hng-er may be varied to a  $\gamma$  extent necessary, without varying its position, when in contact with its respective stud, 32, or 54, snustantially as described.

[This invention consists in certain improvements in machines now in use for making weavers' harness. The ob jects of the inve.tion are, first, to adapt a single machine to the making of different widths of herness. Hitherto a separate mach ne has been required for each change in the width. Second, to adjust certain parts of the machine which are employed to produce the knots to form the eye of the harness. Without engravings we could not convey a clear idea of the construction of the parts. The im provements named are very important.]

MOWING MACHINES—Henry Pease, (assignor to himself and James Roby) of Brockport,  $N, Y \cdot 1$  caim the slotted arm, J', as if orting knife,  $k_r$  arranged substantially as described for the purpose set forth.

[The connection between the sickle bar and the crank consists of a spring rod fixed immovably at one end to the cutter bar, and at the other end by the usual kind of coupling to the cruck. The elasticity of the spring per-mits the necessary change of position to accommodate the working of the crank. The advantage of the spring is that by having a fixed attachment to the cutter bar, the latter may be made thinner and lighter than could other wise be allowed, were the common pivoted rod em ployed

alone. But I claim, in the manufactur of a shoe, by connect-ing its soles and upper, extending the cement not only through periorations in the upper but in or through the insole of the outer sole, or both, as specified, the same presenting great advantages, not only in securing the parts together, but in rendering them water. proof, when the cement employed is of a character to resist water.

## RE-ISSUE .

RE-1350E4. COTTON PRESSES—Nathan Chapman, of Mystic Iti Conn. Patented originally Aug. 8, 1354 : I ctaim the cesses or sots, j, in the hubs of the toothed wheel which the chains that raise the follower work, for ceiving the lower ends of the chains when wound up, bringing the pressure nearer the center of the bearing the wheels, substantially as described. el or

the wheels, substantially as described. COMPOSING AND SETING TYPES-WM S. Loughbor-ough, of Rochester, N. Y. Patented originally Oct 3, 1333: I claim, first, the composing wheel, W, as specified and for the purposes set forth. Second, the means above described for delivering the types from the various cells to the jaws oftr. nsils or their equivale.ds, fixed to a wheel or other rotary apparatus. Third, the construction and application of the transits, as described, or their equivalents, attached to a wheel or other rotary mation, to convey the types from the slides or their equivalents to the galley or composing chamler.

Fourth, the devices for effecting the delivery of the types from the cell of small j's, and those cells which are similarly conditioned in a case of ital is. Fifth, the construction and arrangement of the lever, G, and its he .d. i, as described, and to the purp.sesset forth. Sixth, the construction and arrangement of the jusify-ing tar, a, in combination with the cam ra ch. b. Sevent. the index N' fixed to a bur, a, by which it is operated, in commination with the index pusie, K'. Eighth, the a.plication of the detent, g, operating as described. Ninth, the construction and arrangement of the lever, O, in combination with the rule, or line register, M, as described. Touth, the tappet, t, constructed as described, so as to effect the horizontal and vertical change of the lever, O. Mieventh, the detents, w, so applied as to relain the stides, R, when they are forward there used a for delay in a ty:e.

Washing PAPER Stock-Horace W. Peaslee, of Malden Stock, and Paper Stock-Horace W. Peaslee, of Malden Stock after delivering a type.
Washing PAPER Stock-Horace W. Peaslee, of Malden Stock, and Paper Stock-Horace W. Peaslee, of Malden Stock at the set of t

TACK CLEARERS TO GRASS HARVEGTERS.—Abner Whitejey, of Sprin, field, O. Patented originally Aug. 2, 1 54: 1 claim the roting cone, 6, moving on the axis, 1, at an acute angle to the finger-piece, and furnished with a joint clearer, J. as described, and for the purpose of clearing a track in the cut grass. DESIGN.

PERFUMERY BOTTLES\_Augustus E. Wetherill, of Cin-

The Climate of New England Unchanged.

The opinion is quite common that our seasons have greatly changed, and that our winters are now much milder than those of the "olden times." The Boston Journal, in an article on this subject, states that this position has been distinctly assumed by some of our best historians and naturalists, and many ingenious reasons have been given for the change but so far as it relates to New England it denies the correctness of such notions. It says : "For more than half a century, however, Fahrenheit's thermometer has been in use throughout New England, and we possess an exact register of observations made with it during more than forty years on one spot, by the venerable Dr. Holyoke, of Salem. The temperature of each day was thrice noted at the same hours throughout the whole period, and, as a comparative statement of the earlier and later portions of that period, therefore, it is of singular value. No conclusion can be drawn from it, however, favoring in the least the popular impression respecting the amelic ration of our climate. On the contrary, it shows that from 1786 to 1829 the climate in the vicinity of Boston continued essentially the same. On the 7th of March, 1775, the frost was out of the ground at Portland, Me., and on the same date in 1621, garden seeds were sown in Plymouth, Mass.

"If it could be shown, for instance, that the English ivy, which has been cultivated in this country for more than half a century, could now endure our winters better than formerly, it would furnish strong proof of a softening of our climate; but no such instance can be found, either with the ivy, or with any shrub or tree.

"The reason given for the impression that the climate of our country has been growing milder since its settlement, is, that extraordinary seasons are remembered, while the intermediate years, which are not marked by any unusual prevalence of heat or cold, are forgotten."

## To Builders of Suspension Bridges.

We have received a communication from A. W. Bowen, of Wilmington, Ill., in which he states, that \$20,000 is being raised by tax in that place to build a bridge over the Kankakee river, which is at one point 450, at another 500, at another 1200 feet wide, having good banks, with a solid rock bottom, and the depth of the river 15 inches only, at low water. The township officers having charge of the matter, are not well informed of the expense of wire and other bridges; they will adopt the plan within their means, which promises the greatest strength and durability.

The principal bell for the great clock of the Houses of Parliament is to be nine feet in diameter, and to weigh fourteen tuns, and will be the largest bell, they say, ever cast in England

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