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[*Reported officially for the Scientific American.*]

RINGING BELLS—James R. Baird, of Vincennes. Ind.: I do not claim ringing an elevated bell from a position below it by means of a flexible or jointed frame, when said frame is attached directly to the axis on which the upper end of the tongue swings, as in the bell-ringing device patented in 1852 by Thomas V. Stran.

But I claim the direct attachment of the circular lever C, to the ball or lower end, D, of the tongue or clapper, and the combination of said lever thus attached with the vibrating cross head, E, and handle, I, by means of the pendulous rods, F F, substantially as and for the purposes set forth.

STRAW CUTTERS—Jesse Ball. of Barnesville, Ohio: I claim the reciprocating rack, H, operated from the knife frame, C, through the medium of the lever, E, projection, F, and bent lever, G, in combination with the compress L, adjustable and pressure lid, K, and stationary rack, J, the whole being arranged to operate conjointly as shown, for the purpose set forth.

[The straw in this machine is pushed to the cutter by means of a rack behind, thus preventing the slipping so common in pressure feeds.]

HUSKING CORN—David Bedell, of Seneca Falls, N. Y. I do not claim the knife, C, attached to the bar, B, nor do I claim any of the parts separately considered.

But I claim the knife C, attached to bar, B, in combination with bar, c, attached to spring, D, and rod, E', attached to said spring by means of the lever, f, and link, e, the whole being arranged to operate conjointly, as and for the purp se set forth.

[This operates by the action of a cutting knife being suddenly made to cut thr ugh the butt.]

TELEGRAPHIC FIRE ALARM APPARATUS—Edward C. Clay, of Boston, Mass. : I claim the snail, K, or its equivalent, and dial plate, in combination with the single key, U.

ELASTIC DOOR GUARD—William N. Clark, of Chester, Conn. : I claim the elastic door guard described, for the purposes set forth.

HARVESTING MACHINE—John C. Cox and Reuben Newton, of Greenville, N. C. : We do not claim separately either of the parts described.

But we claim the comb, G, in combination with the rotating teeth, i, and roller, f, constructed and arranged substantially as and for the purpose set forth.

[This harvester cuts only the ears of corn off, and leaves the stalk standing in the field. It is an ingenious device.]

BRICK MACHINE—John B. Collen, of Philadelphia, Pa. : I claim the perforated plates, F', operating as described, in combination with he inclined plate or apron J, the whole operating in the manner and for the purposes set forth.

INDIA RUBBER SPRINGS FOR UPHOLSTERY PURPOSES—Francis Colton, of New York City : I do not claim the discovery of the elastic property of a ring or cylinder of india rubber, when placed upon its circumference.

But I claim the form and combination of a vulcanized india rubber ring with the steadying post, together with the application of the same, in the manner and for the purposes specified.

CARPET FASTENER—Stephen Culver, of Newark, N. Y. I claim the method of securing carpets to floors by means and use of a metallic plate attached to the under side of the carpet, perforated to receive the head of a screw, and by such perforation hitched to a screw, or its equivalent, driven into the floor, in the manner and for the purposes set forth, so that the carpets may be put down and taken up at pleasure, without the use of tools.

CLOTHES CLAMP—Lewis H. Cushman, of Monmouth, Me. : I claim the combination of the spring and cam lever, as set forth.

WASHING MACHINE—Alexander Dickson, of Hillsboro', N. C. : I do not claim any of the parts when viewed in the abstract, for they are well known devices, and have been used separately for similar and analogous purposes.

But I claim the combination of the oscillating rubber, stationary bed, and the pumps, arranged to operate conjointly, as and for the purpose set forth.

[In this machine two rubbers act simultaneously, and between them the clothes to be washed are placed; they act in connection with two pumps, one at each end, which force water through the texture of the clothes, and wash the water away as fast as it is loosened.]

LIME KILNS—Powell Griscom, and Charles S. Denn, of Baltimore, Md. : We do not wish to be understood as claiming any of the parts separately.

But we claim the peculiar combination and arrangement of the parts, as described, and for the purposes set forth.

EXTENSION TABLES—Henry Gross, of Tiffin, Ohio. I claim the combination of the two systems of stretchers, E and D, with the stay rods, a a, constructing and operating as and for the purposes set forth.

FLOUR DISTRIBUTING BOLT FOR GRINDING MILL—W. W. Hainer, of Cincinnati, Ohio: I disclaim the use of the conveyors for mere conveying purposes, as they have often been used for such before.

But I claim the exact combined arrangement of the conveyors, d and f, and their compartments, when united together with the openings, g, as represented and specified in the specification, for the purposes before mentioned.

HEMP CUTTER—John L. Hardeman, of Arrow Rock, Mo. : I claim first, The hinged trailing hemp platforms, approximating in form to a right angle triangle, and made with an inclined elevation, c d, and guard, e, and arranged in rear of the cutter beam on both sides of the machine, in such a manner that a broad central space shall be left for the cut hemp to be laid in, out of the way of the team, and the body of the machine, by said platforms, as and for the purposes set forth.

Second, The employment of the peculiarly constructed hemp trailing platform, J, in combination with the inwardly inclined beveled directing board H, arranged just above the trailing platform, for the purpose of directing the hemp angularly upon the platform, as described.

Third, The employment of a reel, having its blades bent spirally at one end to the axle or shaft, in combination with the inwardly inclining direction board or boards and trailing platform or platforms, as and for the purposes set forth.

SEWING MACHINES—N. W. Harrington, of Jamestown, N. Y. : I claim the looper composed of three fingers, s t w, arranged and operating together in combination with the needle, as described.

[A new and improved looper is used in combination with a single thread, to produce the chain stitch. It makes a very good and useful machine.]

FLY FRAMES OF PRINTING PRESSES—Richard M. Hoe, of New York City : I claim operating the fly frames, I, by means of cam shafts, C, placed one at each end of the machine, and provided with cams, D E F, and used in connection with arms, j m p, rods, i l o, arms, K, and springs, M, or an equivalent device, whereby the cams are made to actuate the fly frames in a more direct manner, and consequently insuring a more perfect operation of the same than heretofore.

[This is described on another page.]

WASHING MACHINE—Abraham Huffer, of Hagerstown, Md. : I claim the combination of the shallow concave formed of rollers, D D, and feeding boards, E E, with the ribbed cylinder, A B, for the purpose of making the washing machine self-feeding and self-clearing, so as to pass the clothes alternately into the water and the air, thus bleaching, as well as cleansing them, and keeping the clothes in the upper strata of water away from the dirt, which is precipitated to the bottom of the tub.

PORTABLE FORGE—W. G. Hyndman, of Cincinnati, Ohio : I claim the plate, g g, when arranged with the bottom of the hearth plate, d d, by which arrangement of plates the recess, R R, is formed, and to be filled with fire-brick, or any other good non-conducting material, to serve as a hearth to the forge in place of laying the brick on the topof the bearth plate d d for reasons mentioned and purposes specified in the specification, and represented in the drawings.

CORN HUSKER—Charles N. Lewis, of Seneca Falls, N. Y. : I claim the combination of the operating lever, B, with the wedge pointed dog, D, lever, E, tripping post, H, blade, C, concave, G, and slot, K, the whole arranged and operating in the manner and for the purpose set forth.

PITCHERS FOR MOLASSES, &c.—Edward Mingay, of Boston, Mass. : I claim the means employed to prevent the dripping of liquids in pitchers for containing liquids, the same consisting of the movable spout or jaw actuated by the opening or closing of the cover, so as to raise and lower the said spout or jaw, substantially as set forth.

GAS METER INDICATOR—Thomas J. Pitt, of New York City : I claim the employment of a rotary indicator, constructed and operated substantially as described, and applied to gas meters to register the consumption of gas as set forth.

BUTTER WORKER—Isaac L. Smith, of Burlington, Vt., and Chas. C. Colburn, of Massena, N. Y. : We claim the box, m, hinged to a sliding frame, m', and made capable of adjustment to any desired extent without being thrown out of gear, substantially as and for the purpose set forth.

[Full particulars of this invention will be found in another column.]

FASTENING FOR MACHINE BELTING—Lewis Smith, of Buffalo, N. Y.: I claim a series of curved arms, A, with faced end fingers, C, extending from a bar, B, on either side, and at right angles thereto, composed of one entire piece of metal, being a new article of manufacture, and constituting a belt clasp, to be used in joining the two ends of belts in running machinery, in the manner specified.

SELF-FEEDING DRILLS—William Wakeley, of Homer, N. Y. : I claim the arrangement of the gearing, J K F E', as shown, whereby both pinions, E' F, may be operated at the same time, so that the drill, E, may be rotated and fed to its work by the rotation of a single shaft or crank.

I also claim the arrangement of the lever, M, with the shaft, g, and catch, k, as shown, in connection with the rod, i, and cross head, c, with the pins, b b, attached, for the purpose of connecting the wheel, K, with the wheel, J, and disconnecting it therefrom, as described.

[See notice of this improvement on another page.]

BREECH-LOADING FIRE-ARMS—J. Durell Greene, of Cambridge, Mass. : I claim the groove, i, or its equivalent, operating in connection with the wad at the rear of the cartridge, in the manner substantially as set forth.

I do not claim a sliding breech plug, secured to the barrel by ears and shoulders, as such device does not constitute my present invention.

But I claim, second, The sliding breech plug, E, in combination with the revolving plunger, c, operating in the manner set forth.

Third, I claim the bolt, C, and stop, y, operating in the manner set forth, to interrupt the movement of the trigger, as described.

OPERATING PILOT'S BELLS ON STEAMERS—J. R. Hopkins, of Lincoln, Me., (assignor to himself and G. T. Sargent, of Bangor, Me.) : I claim first, The arrangement of the knob, f, and slotted plate, B, substantially as shown, so that the several orders may be transmitted to the engineer, or the cylinder, I, rotated as desired, to present such orders, by moving one and the same knob in different directions.

Second, I claim the bars, o p q r u, levers, q', provided with pins, a', plates, L and o', segment rack, K, pinions, C', and rods, v, on the shaft, w, when the whole is arranged to operate as and for the purpose set forth.

Third, I claim the employment or use of the two levers, M M', provided with bell hammers, N N, and operated by means of the bar, x', attached to plate, L, and provided with springs, z' z', and the plate, P, the bar and plate being provided respectively with the projections or shoulders, y' y' f'' f'', and the whole arranged as shown and described.

[For information about this invention we refer to page 91.]

CAKE CUTTER—George R. Peckham, of Worcester, Mass. : I claim the movable cutter, F, with its head D, being placed in the socket, E, as represented, and its capability of being reversed in its position, as represented, for the purposes and uses specified.

ADJUSTING BAND SAWS TO CIRCULAR STOCKS—Jacob Vaughan, of Exchangeville, Pa. : I am aware that sliding carriages have been used for feeding bolts to saws, and bolts have also been dogged substantially in the same way as that shown; band saws, or their equivalents have also been prev ously used; but I am not aware that band saws have een secured to a rotating wheel in the manner shown and described.

I do not claim, therefore, the means employed for feeding the bolt to the saws.

Nor do I claim band saws, irrespective of the means employed for securing them to the wheel.

But I claim securing the saws, E' G, to the wheel, C, by means of the expanding and contracting bauds E H, whereby every part of the saws are firmly secured to said wheel, without perforating the saw or making use of intermediate bolts and screws, all as set forth.

[This improvement is described on another page.]

TOOTH BRUSHES—H. Nicholas Wadsworth, of Washington, D. C. : I claim a tooth brush having all the described features combined and arranged as and for the purpose set forth.

KEY FOR DOOR LOCKS—Thos. K. Webster, of Lawrence, Mass. : I claim the mode of making the key, that is, with its shank and bit in two parts, applied together, and combined with and containing lever bits p p, a cam k, slider, l, and spring, m, or the equivalents therefor, such lever bits while the key is being turned back in the lock, being made to actuate or force outward the latch levers, D D, applied to the bolt, and its case, and combined and operating therewith, as specified, the main bolt being constructed substantially as explained.

STEAM PRESSURE GAGES—John E. Wootton, of Philadelphia, Pa. I do not claim separately the elastic metallic disk as that in one form or another, has for some time been in use.

But I claim the combined arrangement of the duplicate elastic metallic disks, B C, with the bars, G H, as described, for the purpose of giving motion to the index O, in the manner and for the purpose described.

MACHINE FOR FACILITATING THE HUSKING OF CORN.—George Young, Jr., of Saratoga Springs, N. Y. : I claim the combination of the respective actuating parts thereof as above described, whereby the latch, i, the knife, a, and the hammer, g, will act in conjunction with each other, in the manner and for the purpose set forth.

HEMP BRAKES—G. F. S. Zimmerman and Armstrong Beattie, of St. Joseph, Mo.: We do not claim, separately or in itself considered, either of the parts shown and described.

Nor do we claim the broad idea of operating upon both sides of the hemp simultaneously, for this is seen in the device of F. P. Holcomb, patented March 13, 1847, where the hemp is carried in between a pair of rollers, the teeth of which mesh together.

But we claim the arrangement and operation of the rollers, C C, scutching rollers, D D, and breaking cylinder, B, as set forth, whereby the hemp is stretched between the feed rollers and breakmg cylinder, and also between the latter and the scutching rollers, the material while thus stretched being acted upon by the breaking cylinder, B, and the scutching rollers, D D, all as described.

[This improvement will be found described in another column.]

CORN HUSKER—H. A. Doster, of Bethlehem, Pa., (assignor to himself and Smith A. Skinner, of Lowell, Mass.): I do not claim the employment or use of rollers for husking corn, irrespective of the arrangement of the teeth and grooves as shown, for rollers have been previously used for the same purpose.

But I claim the rollers, B C, when provided with the grooves, d, and teeth, e, arranged substantially as and for the purpose set forth.

[For more information about the above we refer to a notice on another page.]

CUTTING APPARATUS FOR HARVESTERS—J. L. Fountain, (assignor to himself, L. J. Clark, Bradford McKinney, and C. M. Fountain,) of Rockford, Ill. : I do not wish to be understood as claiming broadly either the combination of an inclined cutting edge with a straight edge on the finger, the cavities, c c, or the clearing pins a' a'.

But I claim the fingers, C, when constructed in the peculiar manner above described, in combination with the horns or projections, G, reciprocating sectional cutters, D, and clearing rivets, a' a', the whole constructed and arranged for joint operation in the manner and for the purpose set forth.

VENTILATING ATTACHMENT TO BE APPLIED TO PUMPS—C. N. Lewis (assignor to himself and G. C. King) of Seneca Falls, N. Y. : I do not claim broadly the ventilation of wells, by means of air tubes leading from the surface of the ground to the interior of the well, for I am aware that it is old. An example may be seen in the patent of D. Bartlett, 1856.

But to the best of my knowledge and belief it is a new combination to unite a perforated ventilating chamber and base with the pump barrel in such a manner that the ventilator shall constitute a part of the pump; whereby when the pump is applied, the ventilator is also applied and becomes operative from the moment the pump is set.

I claim the arrangement and combination of the perforated base, D, cap G, and perforated tube, g, with the pump barrel, A, as set forth, whereby the ventilator becomes attached to and forms a part of the pump, all as specified.

[By this arrangement the well is perfectly ventilated, and rain water, dirt and foreign substances are prevented from passing down the ventilating channels.]

MACHINE FOR TURNING PILLARS FOR CLOCK MOVEMENTS—W. H. Nettleton Chas. Raymond, and Anson Hatch, (assignors to W. H. Nettleton) of Bristol, Conn.: We do not claim the use of two chucks, simultaneously brought up to turn the ends of a wire to form a pillar shaft or arbor, as the same has been in use and on sale for many years.

Neither do we claim any particular device for holding the turning tools into the chucks; neither do we claim any sliding mandrel or mandrel head, as these are well known for other purposes; neither do we claim the straightener, b, as the same is well known.

But we claim the feeding slide, h, in combination with the straightener, b, having an endwise movement and returning spring or its equivalent substantially as specified, whereby the straightener is drawn along as the wire is fed forward, and straightens the wire as it is forced back by the said spring or its equivalent as specified.

We also claim the compound levers, i and 19, made and acting in connection with the feeding slide, h, and clamp, 14, as and for the purposes specified.

We also claim the holding jaws, k and 26, regulated in their action by the screws, 28 and 29, and operating as and for the purposes specified.

We also claim the sliding gage, m, actuated by the cam, 23, in combination with the holding jaw, k, as specified, whereby the gage, m, is withdrawn, while the pillar or arbor is being forced out of said holding jaws, but comes up to determine the length or position of the wire or blank that passes into said jaws as set forth.

CORN HUSKER—A. S. Skinner, of Lawrence, Mass., (assignor to himself and Herman A. Doster, of Bethlehem, Pa.): I am aware that my machine contains some mechanical devices incident to other machines for husking corn—that is, it contains a serrated cutter, and a means of stripping the husk from the ear; I therefore do not claim the employment of a saw or cutter in connection with an endless carrier to hold the ear of corn, and so present it to the said saw, as to enable the latter to separate the stalk and husks from the ear.

Nor do I claim the employment of an inclined grated spout or gird, and a toothed cylinder having its teeth operating through the spaces between the bars of the spout, and so as to seize the husks, and separate them from the ear, while the latter, by the action of gravity, passes down the spout.

I am also aware that for separating the husk from the ear of corn, two rollers have been employed, each of which has been constructed with teeth and grooves arranged circumferentially on it, and so that the teeth of one roller worked into the grooves of the other while the teeth of the latter work into the grooves of the former. In this case, however, the ear of corn being seized on opposite sides by the teeth of both rollers, could not easily revolve so as to be entirely stripped of its husk, the conjoint operation of the teeth of the two rollers operating also to cause the teeth to penetrate the husks, and tear the kernels of corn out of the ears.

I therefore do not claim fluted or corrugated rollers for husking corn, nor the employment and use of rollers irrespective of my improved arrangement of teeth and grooves; nor do I claim making each roller with teeth and grooves.

But I claim the arrangement of the teeth in one roller in combination with the arrangement of the grooves entirely in the other roller, the same serving to effect the rotation of the ear of corn, as well as the removal of the husk and its presentation to the bite of the rollers as specified.

STEERING APPARATUS—T. M. Richardson (assignor to himself and J. W. Havner) of Scarsport, Me. : I do not claim the slotted tiller, as that was patented Nov. 28, 1842, by P. T. Share; nor do I claim any of the parts separately considered.

But I claim the described combination and arrangement of the rope or chain, M, with the stationary grooved sheaves, L L, and the grooved pulley, E.

STREET SWEEPING MACHINES—David Shattuck assignor to himself, J. S. Shattuck, Jacob Morrill and W. P. Marshall) of Boston, Mass. : I claim the above described arrangement of the cam, R, beneath the horizontal arms or brush carriers, N, whereby the dirt may be thrown to either side, or to the center of the street, as set forth.

MACHINE FOR TURNING WOODEN BOXES—A. S. Newton, of Brandon. Vt. : I claim, first, The use of the combination of the grooved rod and level wheel on the end thereof, with the wheel Q, and cam, T, substantially as set forth.

Second, I also claim the use and combination of the grooved rod, and bevel wheel on the end thereof, with the wheel, R, and cams, X and Y, substantially as set forth.

Third, I also claim the use and combination of the cam, X, with the lever, Z, cutter lever, b 2, and discharging bar, f 2, or their equivalents, separately or collectively, for the purposes set forth.

Fourth, I also claim the cam, Y, in combination with the lever, K 2, and rack, r 2, or equivalents for the said parts, substantially as set forth.

CALENDER CLOCKS—Wm. H. Akins, of Berkshire, N. Y., and Joseph C. Burritt, of Ithaca, N. Y., (assignors to W. F. Huntington and Hervey Platts, of Ithaca, N. Y.) : I claim the quadrennially revolving corrugated disk, I, when operating in the manner substantially as and for the purposes set forth.

RE-ISSUE.

CARDING MACHINES—H. N. Gambrill and Singleton F. Burgee, of Woodbury Mills, Md. Patent dated Feb, 27, 1855—Ante-dated Aug. 22, 1854 : We claim the application of two or more sets or pairs of feeding rollers to the working cylinder of carding engines substantially in the manner and for the purpose set forth, and this we claim whether said feed rollers deliver the material directly on to the main cylinder or to lickers-in, when said lickers-in are so arranged as to work in connection with each other, and with the main cylinder, for the purpose and in the manner substantially as set forth.

We also claim the reversing of the relative velocities of the peripheries of the main working cylinder and stripper, M, at intervals by an automatic movement for the purpose of cleaning or preventing the clogging of the main cylinder, substantially as described.

DESIGN.

MATCH BOXES—Elisha Waters, of Troy, N. Y.

Boiler Explosion.

A boiler explosion occurred in a brass foundry at Bridgeport, Ct., on the 12th inst., the force of which nearly demolished the whole building.

We learn from the *Farmer* that the catastrophe does not appear to have been the result of carelessness on the part of the engineer, as there were no indications of a want of water, or of any undue heat in the flues, but that in the opinion of practical men it was owing to the want of sufficient strength in the head of the boiler, which was made of cast iron, four feet in diameter, without any braces or stays for its support; it had been in use only about eight months. We cannot deprecate in too strong language the use of cast iron for heads of boilers, because it is a material totally unfitted for this purpose, owing to its friable character. Some years since, cast iron boiler heads were not uncommon in western-made boilers, and numberless were the accidents or explosions caused by its use. It dare not be used now on any boiler subject, by law, to government inspection, and should not be allowed to be employed in any boiler whatever.

The Orders of Architecture.

The word "order," in architecture, has reference to the form of column and roof used by the Greeks and Romans. There are five great classes, the Doric, Grecian, Ionic, Corinthian and Composite. During the past few centuries there has been little originality in this branch of art, each designer prefering to follow after the known systems and only introduce new combinations; and in ages yet to come we shall not, like our ancestors, have a distinct and definite system of architecture by which to be distinguished. As iron is now entering so largely into our buildings, surely some new style ought to be adopted, as it is self-evident that that style which was easy, harmonious and graceful when built up of stone will not be the same when moulded in iron. Our architects should look to this, and see that, if iron is to characterize this age as a building material, it should carry with it its distinctive style of art.

Turmeric.

This is a fine yellow powder soluble in water, and is the ground root of a walnut, the Indian Saffron. It is brought chiefly from the East Indies and China, but will grow in almost any moderately warm climate. It gives a fine yellow to stuffs dyed in it, and paper colored with it turns brown by the action of alkalies, and is a very delicate test for their presence. It is also used in curry powder and is a powerful diuretic. A plaster of turmeric top and roots well bruised is a good remedy for the bite of a rattlesnake.

AN INVENTOR DEAD.—Oliver B. Judd died suddenly at Little Falls, N. Y., on the 31st of October. He was a patentee, and also an inventor of several useful improvements. We regard the death of one such contributor to mechanical progress as a much greater loss to the community than that of many warriors famed in history.