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Iron Wire Rope.

This material has now had sufficient time for a thorough testing, and for all purposes to which it has been applied, it has been found to answer much better than hemp. Its applicability for ships' rigging has been put to a careful test at Liverpool, when the following results were obtained : $-3\frac{3}{4}$ inch galvanized wire rope broke at 20 tuns 15 cwt.; 33 inch Manilla hemp, do., 5 tuns 17 cwt.; 33 inch Russian hemp, do., 4 tuns 15 cwt.; 31/4 inch galvanized wire rope, do,, 16 tuns 10 cwt.; 21 inch galvanized wire rope, do., 8 tuns 10 cwt.

How far these results may be counterbalanced in the matter of convenience, it belongs to experience only to decide. The Liverpool Post says, in reference to the super rior strength of iron as shown in the above experiment :-

"But from a table handed to us we perceive that this is not the sole, or indeed we might almost say the greatest, of the advantages it presents. For instance, we observe that wire rope is a fourth less in weight, and not onehalf the bulk of that made of the hemp of the relative strength and enduring capacity. The advantage of this, especially in beating to windward, needs no comment. Moreover, we are assured the cost is 25 per cent in favor of wire rope over hemp, estimating weight and saving. Again, wire-rigging is much less susceptible of atmospheric changes, the latter continually stretching. And when, in addition to all these advantages, it is remembered that wire rigging needs no stripping or refitting, as hemp rigging must have every few years, we cannot but come to the conclusion that wire rope seems destined ere many years to surpass, if it shall not entirely supersede, hemp rope in ships' standing rigging. Already, indeed, we see that for years it has been creeping into more general use; and if the approval of experience can add, as it must, to the value of scientific tests, the use of it will be even more than proportionately rapid, for those who have used it invariably prefer it over hemp." ...

paints, there are many difficulties to encounter, one of the greatest being in feeding the millstones regularly and constantly,, so that an even and smooth paint may be obtained. The process consists in first mixing the dry white lead with oil and then grinding this mixture into a smooth white mass. The invention we are about to describe relates to the conveying of the white lead from the

them that there is always a continuous and regular supply given to the stones. It is as ingenious as simple and affords a better lead than has yet been made in America, being almost as stiff as the British and possessing a smoothness of tint that we have rarely seen equaled. Our large engraving gives a perspective view of the mixing and grinding room, which we will now describe.

mixers to the millstones, and so arranging

A is an iron pan having in it a series of mixers, a', rotating, which are turned by an engine in the story below. B is another mixing pan, having mixers, b'; and C, another with mixers, c'; each of these pans is provided with doors and shutters in their lower part indicated by a, b, c. D are the millstones and d the shoot from it, by which the ground lead is discharged. E is the the bevelgearingturning the millstones; and F, the shaft that receives the power from the engine. Let us

An American-built Russian Corvette

Launched. A steam corvette, to carry twelve guns, ouilt for the Russian government by Wm. H. Webb, this city, was successfully launched on the 16th inst., with her propeller and a portion of the main shaft in place. It was feared that this heavy weight at the extreme end might spring her amidships; but not the least variation in her shear was perceptible after launching, thus demonstrating the great strength of her construction. Her extreme length is 214 feet; breadth of beam, 36 feet; depth of hold, 18 feet. Her engines, which are oscillators of 350 horse power, are now building at the Novelty Works, and they will he fitted up during the winter. She will he phur) in their usual proportions in the ordi-

thoroughly mixed, while the charge in B is being prepared; the shutter, a, is drawn up



endless belt, G, being by it conveyed over the roller, L, seen in Fig. 3, when the scraper cuts it off, and lets it fall onto the endless band, H, which again conveys it into the mixer, C, from which it is taken by the endless belt, I,

to the river Amoor.

This, we believe, is the second steam vessel of war which has been built for the Russian government in New York. Thus it is, the New World is leading the Old. American divers are engaged to raise the sunken vessels at Sevastopol, and Americans build Russian railroads and steam vessels of war.

Gunpowder.

Henry Hodges, of New York, has patented an improvement in the manufacture of this article in Great Britain, consisting in mixing the ingredients or component parts of gunpowder (namely, charcoal, saltpeter and sul-

takes it off, thus allowing an even and regular stream to fall into the millstones. These and a continuous stream of lead falls on the endless belts are moved independently of the rest of the machinery by the belt, O, pulley, K, belt, J, which drives the pulley, L, the band, p, driving the pulley, g, and with it the endless belt, H. P is the shoot from the mixer B. The advantages gained by this arrangement are obvious : first by having the two mixers, A and B, in alternate action, the mixer, C, is always kept full of thoroughly mixed material, and supplies the millstones at an even rate; secondly, conveying the lead on the endless belts will only allow a given and definite quantity to be carried along, which must be regulated by the gates, a, b, or c, in accordance with the capability of the millstones, so that the process can never be hastened and an inferior quality turned out; and thirdly, there is great economy, as with 100 lbs. of lead, three quarters of a gallon of linseed oil are found sufficient to effect a thorough grinding, and no labor is required from the time the materials are put in the tubs to casking it up finished, thus adding to its value as a labor-saving apparatus.

This invention was patented the 3rd of November, 1857, and any information may be obtained by applying to the patentee, W. H. Dolson, 188 Avenue C, New York.

finished early in the spring, and proceed direct | nary way, and in then putting them into a suitable pot or vessel, made of any description of metal or earthenware, into which vessel sufficient steam is admitted by any suitable apparatus to damp the composition, dissolve the saltpeter, and soften the sulphur. By these means the saltpeter is more intimately blended with the other ingredients than by ordinary processes of manufacture. During this process the composition should be kept well stirred up, to expose it as much as possible to the action of the steam, and this may be continued until the whole of the saltpeter is dissolved, when it is taken out, and when sufficiently dry it is ground under the mill runners in the usual way, and packed in barrels for sale,

This projectile, about which so much has been said, is of elongated form, and by a simple and ingenious combination of cast and wrought iron, secures all the advantages of

Rifled Cannon Ball.

the Minie ball. Being entirely of iron, it has

a great superiority in an economical point of

view over the various forms of leaded cannon

balls that have been proposed, and possesses the important advantage of being used red hot when desired. The only change necessary to adapt it to the ordinary form of cannon, is the cutting of two or three grooves in the gun. The invention insures an increase of range and accuracy in the fire of artillery, also an increased efficiency in direct shell firing.



Scientific American.



Issued from the United States Patent Office FOR THE WEEK ENDING NOVEMBER 17, 1857.

[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 faxible or jointed trame, 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 1652 by Thomas V. Stran. But I claim the direct attachment of the circular lever (, 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 reclprocating 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, X, and sta-tionary 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 CORX-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 U, attached to bar, B, in combi-nation with bar, c, attached to spring, D, and rod, K', attached to said apring by means of the lever, f, and link, c, the whole being arranged to operate conjointly, as and for the purp se sci forth.

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

TELEGRAPHIC FIRE ALARM AFFARATOR-Edward C. Clay, of Boston, Mass. I claim the small, K, or its equivalent, and dial plate, in combination with the sin-gite key, U.

ELASTIO DOOB 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 sepa-rately either of the parts described. But we claim the comb, G. in combination with the robating tecth, i, and roller, f, constructed and arranged substantially as and for the purpose set forth.

This harvester cuts only the cars of corn of and leaves the stalk standing in the field. It is an ingeni-

ous dovice. BRICK MAGENXE-John B. Collen, of Philadelphia, Pa: I claim the perforated plates. F', operating as de-scribed, in combination with he inclined plate or spron J, the whole operating in the manner and for the pur-poses set forth.

INDIA RUBBER SFRINGS FOR UPBOLSTREY PURPORES 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 FASTRICE-Risphen Culver, of Newark, N. Y. I claim the method of securing carpets to floors by means and use of a metallic plate stacked to the under side of the carpet, partorated to receiver the head of a screw, and by such performing hitched to a screw, or its equiva-lent, driven into the floor, in the manner and for the purpose set forth, so that the carpets may be put down and taken up at pleasure, without the use of tools.

CLOTHER CLAIR-Lewis H. Cushman, of Monmouth, Ma. : I claim the combination of the spring and cam lever, as set forth.

WASHING MACHINE-Alexander Dickson, of Hills-boro, 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.]

LDUF 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 arrange-ment of the parts, as described, and for the purposes set iorth.

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

FLOUE DISTRIBUTING BOLT FOR GRINDING MILL-W. W. Hamer, of Uncinnati, 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 gract combined arrangement of the conveyors, d and f, and their compartments, when uni-ted together with the openings, g, as represented and specified in the specification, for the purposes before mentioned

Hamp Curran-John L. Hardeman, of Arrow Rock, Mo. : l claim first, The hinged trailing bemp platforms, approximating in form to a right angle transfe, and made with an inclined elevation, c d, and guard, e, and arranged in rear of the cutter beam on both sides of the 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 p atforms, as and for the purposes set forth. Second, The employment of the peculiarly construct-ed hemp trailing platform, d, in combination with the inwardly inclined beveled directing board H, arranged just above the trailing platform, for the purpose of di-recting the hemp angularly upon the platform, as de-acribed.

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

SEWING MAOHINES-N. W. Harrington, of James-town, N. Y. : I claim the looper composed of three fig-gens, st w. arranged and operating together in combi-nation with the Deedle, as described.

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

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FIX FRAMES OF PRINTING PRESENT. 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 inconnection with arms, j m p, rods, i lo, arms, K, and springs, M, or an equivalent device, where by the cams are made to actuate the fly frames in a more direct manner, and consequently insuring a more perfect op-eration of the same than heretofore.

[This is described on another page.]

Washing Machine-Abraham Huffer, of Hagers-town, Md.: I claim the combination of the ahallow concave tormed of rollers, D J and feeding boards, E E, with the rinbed cylinder, A B, for the purpose of making the washing machine self-seeding and self-clearing, so as to pass the clothes alternately into the water and the air, thus blenchine, as well as cleaning them, and keeping the clothes in the upper strata of water say from the dirt, which is precipitated to the bottom of the tuh

PORTAINE FORGX-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, 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 topoi the bearth plate d for reasons men-tioned and pupposes specified in the specification, and represented in the drawings.

Cons HUSERE-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 ar-ranged and operating in the manner and for the purpose set forth.

PITCHERS FOR MOLASSES, &a-Edward Mingay, ALCHARTS FOR MOLASSES, & .--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 INDIOATOR—Thomas J. Pitt, of New York City: I claim the employment of a rotary indicator, constructed and operated subtantially 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 Massona, N. Y. : We claim the box, m, hinged to asilding frame, m', and made capa-ble of adjustment to any desired extent without being thrown out of goar, substantially as and for the purpose set forth.

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

FASTERING FOR MACHINE BELTING—Lewis Smith. of Buffalo, N. Y.: I claim a series of curved arms, A, with faced end fungers, C, extending from a bar, B, on either side, and at right angles thorsto, composed of one entire plece 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 spe-cified.

SH.F.FERDING DRHLS-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 oper-ated at the same time, so that the drill, E, may be ro-tated 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, and cross head, c, with the pins, 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.]

BRESCI-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

or 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.

trigger, as described. OFREATING FILOT'S BELLS ON STRANCES-J. R. HOP-kins, of Lincoln, Mc., taseignor to himself and G. T. Sargent, of Bangor, Mc.): I claim first, The arrange-ment of the lunch, "and slotted plate, B, substantially a shown, so that the several orders may be transmitted to the engineer, or the cylinder, I, rota ed as desired, to present such orders, by moving one and the same knob in different directions. Second, I claim the bars, op Q r µ, levers, q', provi-ded with pins, u', plates, L and o', segment rack, K, pinlons, C, and rod, w, on the slaft, 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, ', statched to plate, L, and provided with spring, z' z', and the plate, P, the ar and plate being provided respectively with the pro-jections or shoulders, y' y' f' f', and the whole arranged as shown and described. For information about this invention we refer to

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

CARE CUTTEE-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 repre-sented, for the purposes and uses specified.

sented, for the purposes and uses specified. ADUSTING BAND SAWS TO CINCULAR STOOKS-Jacob Yaughan, of Exchangeville, Pa. I am aware that slid-ing carriages have been used for feeding bolts to saws, and bolts have also been dogged substantially in the same way as that shown: band eawa, or their equiva-lents have also been prevously 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 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.]

[This improvement is described on another page

Toorn BRUSHES-H. Nicholas Wadsworth, of Wash-inston, D. C. : I claim a tooth brush having all the de-soribed features combined and arranged as and for the purpose set forth.

Kry ros Doors Loons-Thos. K. Webster, of Lawr-ence, Mass. : I claim the mode of making the key, that is, with its shank and bit in two parts, applied logeliher, 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 com-bined and operating therewith, as specified, the main holt being constructed substantially as explained.

STEAM PEESSURE GAGES-John E. Wootton, of Phila delphia, Pa. 1 do not claim separately the elastic

delphia, 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 dupli-cate 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 bammer, g, will act in conjunction with each other, in the manner and for the purpose set forth.

HEMF 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 de-

or in itself considered, either of the parts shown and de-scribed. Nor do we claim the broad idea of operating upon botb aides 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 meab together. But we claim the arrangement and operation of the rollers, C G, seutching rollers, D D, and breaking cylin-der, B, as set forth, whereby the hemp is stretched be-tween the feed rollers and breaking rollers, the mate-rial while thus stretched being acted upon by the break-ing cylinder, B, and the soutching rollers, D D, all as described. (This improvement will be found described in another

[This improvement will be found described in another

column.] CORN HUGKEE-H. A. Doster, of Bethlehem, Pa., (as-signor to himself and Smith A. Skinner, of Lowell, Mass.): I do not claim the employment or use of rollers for lusking corn, irresp citive of the arrangement of the teeth and grooves as shown, for rollers have been pre-viously 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. Lieur more information about the shown we refer to a

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

CUTTING APPARATUS FOR HARVESTERS-J. L. Foun-tain, (assignor to himself, L. J. Clark, Bradford McKin-ney, 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 at a. But I claim the fingers, C. when constructed in the

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

the purpose set forth. VENTILATING ATLAOIMENT TO BE AFFLIED TO PUNE — C. N. Lewis (assigner to himself and G. C. King) of Sencea Falls, N. Y. : I do not claim broadly the ventil-stion 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 batten to D. Barliett, 1458. — But to the best of my knowledge and helief 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 also applied and becomes operative from the moment the pump is set. I claim the arrangement and combination of the per-forated 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 we lisperfectly ventilated, and rain water, dirt and foreign substances are prevented from passing down the ventilating channels,]

MACHINE FOR TURNING PILLARS FOR CLOOK MOVE-MENTS-W. H. Nettleton Chas. Raymond, and Anson Hatch, (assignors fow H. Nettleton) of Bristol, (conn.: We do not claim the use of two chucks, simultance sly 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 usery ware

whaft or a bor, as the same has been in use and on sale for many years. Neitherdo we claim any particular device for holding the turning tools into the chucks; a neither do wo claim any sliding mandrel or mandrel head, as these are well known for other purpose; neither do we claim the strangthener, b, as the same is well known. But we claim the feeding slide, b, in combination with the straightener, b, having an endwise movement and returning spring or its equivalent substantially as the whready the straighteners is drawn along as the wire is led forward, and straightenes the wire as it is forced back by the said spring or its equivalent as speci-fied.

loreed back by the said sping of the cq tynent as spice-fied. 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 28, regulated in their action by the screws, 28 and 39, and operating as and for the purposes specified. We also claim the sliding gage, m actuated by the carm 98, in combination with the holding jaws, k, as spe-cified, 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 holding jaws as set forth.

but comes up to determine the length or position of the wire or blank that passes into said is we as set forth. CORN HUNGERE-3. A. Skinner, of Lawrence, Mass., (assignor to himself and Herman A. Doster, of Bethle-hem, Pa.): I am aware data 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 heak from the ear; I there-fore 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 talk and husks from the ear. Nor do I claim the employment of a number of the spout, and so present it to the said saw, as to enable the latter to separate the talk and husks from the ear. Nor do I claim the employment of a number of the spout, and so as to size the husks, and separate them from the ear, while the latter, by the action of gravity, passed 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 ar-ranged circumferentially on it, and so that the teeth of one roller worked into the rrooves of the other while former. In this case, however, the ear of corn being scized on opposite ides by the teeth of both rollers, could not easily revolve so as to be entirely stripped of its husk, the cunjoint operation of the teeth of the to two rollers operating also to cause the teeth of the to two rollers operating also to cause the teeth of the to two rollers operating also to cause the teeth of the to two rollers operating also to cause the teeth of the teeth and grooves. In therefore do not claim fluted or corrugated rollers irrespective of my improved arrangement of teeth and argoovers. In of lead and roller with teeth and grooves. But I claim the arrangement of the teeth in one roller in combination with the arrangement of the groover en-tiral in the other rouler.

But I claim the arrangement of the teeth in one roller combination with the arrangement of the grooves en-

But I claim the arrangement of the teeth in one roller in combination with the arrangement of the grooves en-tirely 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 bimself and J. W. Havney) of Scarsport, Mc. : I do not claim the slotted tiller, as that was patented Nov. 28, 1629, by P. T. Share; nor do I claim any of the parts separately considered. But I claim the described combination and arrange-ment of the rope or chain, M, with the stationary grooved sheaves, L L, and the grooved pulley, E.

STEERT SWEEPING MACHINES-David Shattuck as-signor to himself, J. S. Shattuck, Jacob Morrill and W. P. Marshall) of Boston, Mass. I claim the above de-scribed arrangement of the cum, R, beneath the borizon-tal 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 TUENING WOODEN BOXES-A. S. New-ton, of Brandon. V. : I claim, first, The use of the com-bination of the grooved rod and level wheel on the end thereot, with the wheel Q, and cam, T, substantially as set forth.

Second, I also claim the use and combination of the rooved rod, and bevel wheel on the end thereof, with be 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 dis-charging bar, f 3, or their equivalents, separately or col-lectively, 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. Huutington and Hervey Platts, of Ithaca, N. Y.): I claim the quadrennially revolving corrupated disk, I, when operating in the manner substantially as and for the purposes set forth.

RE-ISSUE

CARDING MACHINES —II. N. Gambrill and Singleton F. Burkee, of Woodbury Mills, Md. Patent dated Pcb, 27, 1555—Ante-dated Aug. 22, 1854: We claim the ap-plication of two or more acts or pairs of feeding rollers to the working cylinder of carding engines substantial-ly 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 bickersin, when said lickers in are so arranged as to work in connection with each other, and with the main cylinder, for the 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 ver pheries of the main working cylinder and stripper, M, at i tervals by an automatic movement for the numera of elegening of Unevening the close of so of the other the numera of elegening of unevening the close of so of the other the numera of elegening of unevening the close of the other 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 aud 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 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.