FOREIGN NEWS AND MARKETS.

The Sheffield steel trade continues very active; this is owing to the adaptation of steel to several new branches of manufacture. The casting of steel bells has become quite an extensive business. One firm in Sheffield has made 1,300 during the past six months, and some of very large dimensions are about to be cast. Steel is cheaper than regular bell-metal; and as it is much stronger, less metal is required in a bell. Kettle drums, for the British army, are now also made of steel, and they have attained considerable success.

Statistics have been collected of the destruction caused on the coasts of England by the hurricane which took place on the 24th of October last; and the disasters appear to have been the most numerous on record. There were 325 shipwrecks, and 748 lives lost.

Batteries of the Armstrong breech-loading rifled cannon are being manufactured with great rapidity No less than 30 of these guns, some of which are of large caliber, are being sent with great despatch by the overland route to China.

It is proposed to build a monster hotel near the old London Bridge, having 250 sleeping apartments. The returns of the different railways which have their termini at London Bridge, show that not less than 18,000,000 of persons travel annually upon those lines. This hotel, however, will not equal, in size, some of the largest ones in New York.

A farmer—Mr I. Cutts—in the county of Essex, England, lately opened up, for public inspection, a large building like a factory, for doing the inside work of the farm. There is a steam engine in it of 12-horse power, which cuts the hay and straw, grinds the meal, mixes the food for the cattle, and conveys it to the stables. It also threshes the grain and drives a circular saw At the end of the building, there is a piggery and apparatus for steaming all the pig and cattle feed. The food for the animals is conveyed on iron trucks, which run on tram rails, and traverse the building. The cost of the structure and machinery amounted to £3,000 (nearly $15,000). This affords some evidence of the perfection to which indoor farming operations has attained in England.

The French government has just opened a free school in Paris to teach the youth of both sexes the art of drawing and engraving on wood. One of the most eminent painters in Paris has been chosen its drawing-master.

At the Gobelins' factory, in Paris, there are finishing a series of portraits of eminent sculptors, painters and artists of the sixteenth century. They are to adorn the gallery of Apollo, at the Louvre.

At all hours of the day and night there are persons in the thoroughfares of Paris who keep a record of the number and class of vehicles which pass. As the streets are macadamized, instead of being paved, the object of keeping a record of the vehicles is to ascertain the amount of wear they exert upon the streets.

There has been no change in the British metal market since our last issue, excepting that pig iron was somewhat more active, at former ruling prices. Cotton, in Liverpool, had been rather flat.

NEW YORK MARKETS.

CANDLES.—Sperm, city, 38c. a 40c. per lb.; sperm, patent, 50c.; wax, paraffine, 50c.; adamantine, city, 18c. a 21c.; stearic, 27 a 28c.

COAL.—Anthracite, $4.50 a $5; Liverpool orrel, $11; cannel, $12.

COPPER.—Refined ingots, 28c. per lb.; sheathing, 26c.; yellow metal, 20c.

CORDAGE.—Manilla, American made, 8¼c. per lb.: Rope, Russia hemp, 12c.

COTTON.—Ordinary, 8¼c. a 8¾c.; good ordinary, 9¾c. a 10c.; middling, 11½c. a 11¾c.; good middling, 11¾c. a 12½c.; middling fair, 11¾c. a 12⅝c.

DOMESTIC GOODS.—Shirtings, brown, 30-inch, per yard, 6c. a 7¼c.; shirtings, bleached, 26 a32-inch, per yard, 6c. a 8c.; shirtings, bleached, 30 a 34-inch, per yar , 7c. a 8½e.; sheetings, brown, 36 a 37-inch, per yard, 5¾c. a 8¾c.: sheetings, bleached, 36-inch, per yard, 7¾c. a 15c.; calicoes, 6c. a 11c.; drillings, bleached. 30-inch, per yard, 8¾c. a 10c.; cloths, all wool, $1.50 a $2.50; cloths, cotton warp, 85c. a $1.37; cassimeres, 85c. a $1.37½; satinets, 30c. a 60c.; flannels, 15c. a 30c.; Canton flannels, brown, 8¾c. a 13c.

DYEWOODS.—Barwood, per tun, $18 a $20; Camwood, $130; Fustic, Cuba, $35 a $36; Fustic, Tampico, $22; Fustic, Savanilla, $19 a $20; Fustic, Mara aibo, $18.50 a $19; Logwood, Laguana, $22 a 23; Logwood, Tabasco, $21; Logwood, St. Domingo, $13 a $13.50; Logwood, Honduras, $16 a $17; Logwood, Jamaica, $12.50 a $13; Lima wood, $65 a $75; Sapan wood, $45.

FLOUR.—State, superfine brands, $5.15 a $5.20; Ohio, common brands, $5.30 a $5.35; Michigan, Indiana, Wisconsin, &c., $5.15 a $5.30; Genesee, extra brands, $5.75 a $7.50; Missouri, $5.30 a $7.50; Canada, $5.40 a $6.50; Richmond City, $6.25 a $7.25; Rye flour, fine, $3.60 a $3.90: corn meal, $3.75.

HEMP.—American undressed, $120 a $150; dressed, from $160 a $200. Jute, $87 a $90. Italian, $375. Russian clean, $190 a $200 per tun. Manilla, 6¾c. per lb. Sisal, 5½c.

INDIA-RUBBER.—Para, fine, 55c. per lb.; East India, 50c.

INDIGO.—Bengal, $1 a $1.55 per lb.; Madras, 70c. a 95c.; Manilla 60c. a $1.15; Guatemala, $1 a $1.25.

IRON.—Pig, Scotch, per tun, $24 a $25; Bar, Swedes, ordinary sizes, $85 $86: Bar, English, common, $42.50 a $43; Refined, $52 a $54; Sheet, Russia, 1st quality, per lb., 11¼c. a 11⅝c.; Sheet, English, single, double and treble, 3¼c. a 3⅞c.; Anthracite pig, $24 per tun.

IVORY—Per lb., $1.25 a $1.80.

LATHS.—Eastern, per M., $2.25.

LEAD.—Galena, $5.90 per 100 lbs.; German and English refined, $5.65a $5.70; bar, sheet and pipe, 5¾c. a 6c. per lb.

LEATHER.—Oak slaughter, light, 29c. a 30c. per lb.; Oak, medium, 30c. a 32c.; Oak, heavy, 28c. a 31c.; Oak, Ohio 29c. a 30c.; Hemlock, heavy, California, 19c. a 20c.; Hemlock, buff, 15c. a 18c.; Cordovan, 50c. a 60c.; Morocco, per dozen, $18 to $20.; Patent enamcled, 16c. a 17c. per foot, light Sheep, morocco finish, $7.50 a $8.50 per dozen.; Calf-skins, oak, 57c. a 60c.; Hemlock, 56c. a 60c.; Belting, oak, 32c. a 34c.; Hemlock, 28c. a 31c

LIME.—Rockland, 80c. per bbl

LUMBER.—Timber, white pine, per M feet, $17.50; yellow pine, $35 a $36; oak, $18 a $28; eastern pine and spruce, $14 a $15.50: White Pine, clear, $35 a $40; White Pine, select, $25 a $30; White Pine, box, $14 a $18; White Pine, flooring, 1¼ inch dressed, tongued and grooved, $24.50 a $25; Yellow Pine, flooring, 1¼ inch, dressed, tongued and grooved, $29 a $32; White Pine, Albany boards, dressed, tongued and grooved, $20 a $21; Black Walnut, good, $45: Black Walnut, 2d quality, $30; Cherry, good, $45; White Wood, chair plank, $42; White Wood, 1 inch, $23 a $25; Spruce Flooring, 1¼ inch, dressed, tongued and grooved, each, 22c.a 24c.; Spruce Boards, 15c. a 17c.; Hemlock Boards, 12½c. a 14c.; Hemlock wall stripe, 10c. a 11c.; Shingles, cedar, per M, $28 a $35; Shingles, cypress, $12 a $25; Staves, W. O. pipe, light, $55 a $5; Staves, white oak, pipe, heavy, $75 a $80; Staves, white oak, pipe, culls, $30 a $35; Staves, do. hhd., heavy, $70; Staves, do. bbl. light, $30 a $35; Staves, do. bbl. culls, $20; Mahogany—St. Domingo, fine crotches, per foot, 35c. a 45c.; St. Domingo, ordinary do., 20c. a 25c.; Honduras, fine, 12½c. a 15c.; Mexican, 13c. a 15c.

NAILS.—Cut, 3¼c. a 3⅞c. per lb.; American clinch, 5c. a 5½c.; American horse-shoe, 14½c

OILS.—Olive, Marseilles, baskets and boxes, $3.35 a $3.40; Olive, in casks, per gallon, $1.10 a $1.15; Palm, per pound, 9c. a 9¼c.; Linseed, city made, 57c. a 58c. per gallon; linseed, English, 57c. a 58c.; whale, fair to prime, 49c. a 52c.; whale, bleached 59c. a 60c.; sperm, crude, $1.35 a $140; sperm, unbleached winter, $1.45; lard oil, No. 1, winter, 87½c. a 92½c.; red oil, city distilled, 55c.; Wadsworth's refined rosin, 30c. a 40c.; Wadsworth's boiled oil for painting, 35c. a 40c.; Wadsworth's tanner's improved and extra, 30c. a 40c.; Wadsworth's machinery, 50c. a $1; camphene, 45c. a 47c.; fluid, 54c. a 56c.

PAINTS.—Litharge, American, 7c. per lb.; lead, red, American, 7c.; lead, white, American, pure, in oil, 8c.; lead, white, American, pure, dry, 7¼c.; zinc, white, American, dry, No. 1, 5c.; zinc, white, French, dry, 7¼c.; zinc, white, French, in oil, 9¾c.; ochre, ground in oil, 4c a 6c.; Spanish brown, ground in oil, 4c.; Paris white, American, 75c. a 90c. per 100 lbs.; vermillion, Chinese, $1.12½ a $1.22; Venetian red, N. C., $1.75 a $2.25 per cwt.; chalk, $4 per tun.

PLASTER-OF-PARIS.—Blue Nova Scotia, $2.75 per tun; white, $3.50; calcined, $1.20 per bbl.

RESIN.—Common, $1.60: per 310 lbs.; strained, No. 2, &c., $1.60 a $1.70; No. 1, per 280 lbs. $1.75 a $2.50; white, $2.50 a $3: pale, $3 a $3.50.

SOAP.—Brown, per pound, 5c. a 8c.; Castile, 8¾c. a 9c.; Chemical olive, 7c. a 7¾c.

SPELTER plates, 5¼c. a 5½c. per lb.

STEEL.—English cast, 14c. a 16c. per lb.; German, 7c. a 10c.; American spring, 5c. a 5½c.; American blister, 4½c. a 5½c.

SUMAC.—Sicily, $60 a $80 per tun.

TALLOW.—American prime, 10¾c. per lb.

TIN.—Banca, 32c.; Straits, 30c.; plates, $6.25 a $9.30, per box.

WOOL.—American, Saxony fleece, per lb., 55c. a 60c.; American full blood merino, 48c. a 52c.; extra, pulled, 45c. a 50c.; superfine, pulled, 39c. a 43c.; California, fine, unwashed, 24c. a 32c.; California, common, unwashed, 10c. a 18c.; Mexican, unwashed, 11c. a 14c.

ZINC.—Sheets, 7c. a 7¾c. per lb.

The foregoing rates indicate the state of the New York markets up to December 29th.

There has been very little change in the markets during the past week; all kinds of manufacture and merchandize are in a state of inactivity, but this is usually the case during the last month of the year.

There is a good demand for furs of all descriptions. Capes are enlarged in their dimensions this winter, and full robes of fur, such as are worn by the ladies of Russia, are becoming more common. Otter skins are selling at from $3.50 to $5.50 each; those of the black and the silver fox, from $10 to $50; the dark marten, $5 to $6; the dark mink, $2.50 to $3; the beaver, $1.20; and the skin of the black bear, for sleigh robes, from $6 to $8.

There has been a steady demand for hemlock sole, and a further advance has been obtained on all descriptions of leather. Oak sole continues in fair inquiry, without variation in prices.

No less than $39,975,750 arrived from California last year, being an increase of $3,796,406 over the year previous. The latest mining news from California is highly favorable, and promises well for the gold crop and recently-discovered silver crop. So, also, the gold news from Oregon represents everything in that quarter in a flourishing condition.

The cotton exports this season have been 902,000 bales, against 729,000 bales of last season. The best qualities of cotton are rather scarce in the market.

RAND'S FLOUR MILL.—Some months ago, we solicited a patent for Christopher Rand, of Peoria, Ill., on a flour mill constructed on an ingenious and novel plan; and, if the statements are true, it has proved one of the most valuable improvements ever made in flour and grain mills. The stones are made in the form of rings so that the whole of the grinding surface has a much more nearly uniform speed than in the usual plan. A radial fan is placed within the rings, which blows the flour out from between the stones as it becomes sufficiently fine; thus relieving it from the continual action of the stones, which tends to heat it and consumes power uselessly. The upper stationary stone is hung upon universal joints, which secures a perfect adjustment of the faces and keeps them in "tram."

ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING DECEMBER 27, 1859.

[Reported Officially for the SCIENTIFIC AMERICAN.]

*** Pamphlets giving 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.

26,553.—Norman Allen, of Unionville, Conn., for an Improved Vise and Saw-set:

I claim the vise formed of the bars, A A, with jaws, b b, attached, the movable bar being actuated by the treadle, B, rod, C, and toggle, D, or their equivalents, in combination with the saw-set formed of the bar or bed, G, attached to the vise by the rod, F, and provided with the beveled plate, i, gage, j, and adjustable center, H, substantially as and for the purpose set forth.

26,554.—Wm. H. Baker, Daniel Dean, and B. L. Fetherolf, of Tamaqua, Pa., for an Improvement in Straw-cutters:

We claim, first, The double-edged reciprocating knife, C, in connection with the bed, P, arranged to operate substantially as and for the purpose set forth.

Second, The arrangement of the eccentric, H, yoke, I, slide, J, lever frame, M, and bars, O, substantially as shown and described for operating conjointly the feed bar, L, and pressure bed, P.

Third, The eccentric plate, G, placed on the shaft, i, when used in connection with the slide, J, to control its longitudinal movement for the purpose set forth.

[The object of this invention is to obtain a machine that will cut hay, straw and stacks for fodder with great rapidity, perform the work well, and be capable of having certain parts graduated so as to regulate, as may be desired, the length of the pieces into wh ch the stuff is to be cut.]

26,555.—Wm. Banham, of San Francisco, Cal., for an Improvement in Machines for Pulverizing Quartz:

I claim the circular troughs T T', constructed as described, in combination with the drags, D D', at the extremities of the radial arms, a, the whole constructed and operated substantially in the manner and for the purpose set forth.

26,556.—R. D. Bartlett, of Bangor, Me., for an Improvement in Veneering Machines:

I claim the application of the throat gage to the main and secondary cutters, so that both the gage and secondary cutters can be turned upward away from the log, under circumstances and for the purpose or objects substantially as set forth.

26,557.—G. W. Beardslee, of Flushing, N. Y., for an Improved Magneto-electric Machine:

I claim the mode of operation of the pole-changer, by which the current is made to travel in the same direction, substantially as described.

26,558.—G. W. Beardslee, of Flushing, N. Y., for an Improved Magneto-electric Machine:

I claim the compound magnet described, consisting of radial poles, arranged about a common center, and connected together at their inner ends, substantially as and for the purpose described.

I also claim forming such a compound magnet, with radial poles, connected at their inner ends, by cutting out the radial poles and connecting rings from a single plate, substantially as and for the purpose specified.

I also claim, in combination with rotating magnets, the insulated rings to which the terminal wires of the helices are connected, substantially as described.

26,559.—James Bouton, of Macon City, Mo., for an Improvement in Seeding Machines:

I claim the arrangement of the wheels, b' b, pipes, C and D, covers, E, springs, F, and u, and the yielding beam, c, in the manner described, and also the arrangement of the valve, f, in the hopper, P, in the manner described, for the purpose specified.

26,560.—Samuel Boyd, of Brooklyn, N. Y., for an Improvement in the Manufacture of Hoes:

I claim the combination with the drop, G, and anvil, B, of the drop opening, f, and mandrel, C, so that after the drop has given its blow, it will hold the hoe in place, and allow the mandrel, C, to be passed through it into the hoe, to form and finish the eye thereof, all as shown and described.

[The object of this invention is to reduce the manual labor attending the manufacture of hoes, and at the same time ensure a better finish and more desirable article than could be produced by the devices hitherto employed.]

26,561.—O. G. Brady, of New York City, for an Improvement in Guides for Sewing Machines:

I claim the combination of the presser, having its sole formed with a curved, d, a grooved toe, f, and a recess, e, as described, and the curved guide tube, g, arranged relatively to the curved edge and toe of the presser, as described, and operating as and for the purpose specified.

[This invention consists in a certain construction and arrangement relatively to each other, of a guiding tube and a grooved presser,

whereby I am enabled to insert the cord within a fold or between two thicknesses of fabric, in straight, curved or zigzag lines, and in such manner as to bring all the fullness produced by the cord on one side of the fold or plait, leaving the opposite side perfectly even or flat.]

26,562.—R. M. Brooks, of Greenville, Ga., for an Improvement in Cotton Seed Planters:

I claim the arrangement of the wheels, J E F G, and N, the seed-box, H, the handles, D D, the bar, S, the braces, L, coulter or opener, B, covers, J, a n, K, and bracc, W, as described for the purposes set forth.

26,563.—R. M. Brooks, of Greenville, Ga., for an Improvement in Plows:

I claim the arrangement of beam, J, screw foot, F, notch, V, plow hoe, A, opening, P, mold boards, O, openings, U, nuts, E E, holes, J J J, constructed as described for the purposes set forth.

26,564.—Geo. Cook and H. I. Kimball, of New Haven, Conn., for an Improvement in Top Props for Carriages:

We claim the combination of the thimble or pipe, e or g, with the screw bolt or standard, a or b, and the joint bars, B B or C, when the whole is constructed and used substantially as described,

26,565.—S. F. Covington, of Indianapolis, Ind., for an Improved Register for Railroad Cars:

I claim the indicator, A, when operated in connection with the telegraph instrument or its equivalent, using the Roman numerals, or their equivalents, and operating the same, substantially as and for the purpose set forth.

26,566.—Isaac R. Crane, of Warsaw, Mo., for an Improvement in Ditching Machines:

I claim the arrangement of the plow, G', with the frame, A, and the scoop, Z, and elevator, F, and the described arrangement of devices for operating the said plow, in the manner described.

I claim the arrangement of devices, whereby the scoop and elevator of my machine is lowered in and raised out of the ditch, in the manner described.

I claim the arrangement of the guide wheel, P, with the frame, A, and with the arrangement of devices for operating the said wheel, as described.

26,567.—L. B. Miller, of Newark, N. J., assignor to A. D. Crane, of Boston, Mass., D. F. Tompkins, L. B. Miller, and C. T. Tompkins, of Newark, N. J., and D. Holsman, of Passaic, N. J., for an Improved Machine for Turning Irregular Forms:

I claim, first, The double disk-cutter head, A A', constructed substantially in the manner and for the purpose described.

Second, I claim the consolidation of the separate cams, b b, Figs. 5 and 6, into a solid former, or consolidated cam, B Figs. 1, 2 and 7, and the use of such consolidated cam or former, in combination with the said Crane's lathe.

Third, I claim the use of the levers, m m Figs. 1 and 2, formed and adjusted in the cutter's head, substantially as described.

26,568.—J. G. Goshon, (assignor to himself, H. Ruby, John Wonderlich, and H. R. Ruby), of Shippensburg, Pa., for an Improvement in Railroad Car Couplings:

I claim the longitudinal moving shaft, A, in combination with the spring, s, bolt, a, arm, b, and projection, c, substantially as and for the purposes set forth.

26,569.—G. W. Dana, of Durand, Ill., for an Improved Lock:

I claim, first, The employment or use of a series of spindles, G K, provided with slots or recesses, h m, and with lettered caps, ❡, connected by catches, p, the spindles being arranged directly with the bolts, as with C, or indirectly, by means of wheel, F, as with B, either or both, for the purpose set forth.

Second, The slide bar, D, provided with the projections, f f, arranged relatively with the slots, B C, and connected with the guard wheel, H, as shown, in connection with the wheel, F, and spindles, G, arranged to operate as and for the purpose set forth.

[The object of this invention is to obtai a burglar-proof and powder-proof lock, one admitting of cha ge or permutation, and one also that may be easily manip lated both as regards the effecting of the changes and the locking and unlocking of the lock.]

26,570.—Newell Daniels, of Milford, Mass., for an Improved Cloth-holder in Needle-work:

I claim, as a new article of manufacture, a ladies' work-holder, to hold the work by the action of the piece, B, towards and in connection with the solid part of the frame, A, when constructed and operating substantially in the manner and for the purpose as above set forth and described.

26,571.—John Danner, of Canton, Ohio, for an Improvement in Sleeping Chairs for Railroad Cars:

First, I claim the limb-supporting device, F G H, in combination with the seats, constructed substantially as described and for the purpose set forth.

Second, I claim the combination with the seats, C, and frames, B, of the backs, D, folding head rests, I, slotted pieces, b, arranged and operating in relation to and in combination with the limb-supporting device, F G H, substantially as and for the purpose set forth.

26,572.—L. A. Dole, of Salem, Ohio, for an Improved Washing Machine:

I claim the arrangement consisting of the tub, A, rubber, B, hinged rubber, C, slotted arms, a b, lever frame, D, and hinged inclined links, E E, in the manner and for the purpose described.

26,573.—Francisco Domenech, of Ponce, Island of Puerto Rico, for an Improvement in Clarifying Cane Juice. Patented in the Island of Puerto Rico, Aug. 17, 1858:

I claim the method of determining the amount of lime necessary to be added to the raw juice, to defecate the same, by the employment of the volumetric method, as set forth.

26,574.—Eugene Duchamp, of St. Martinsville, La., for an Improvement in Apparatuses for Evaporating Sugar Juices:

I claim, first, The arrangement of a vertical boiler, F, in front of the furnace, having a funnel, I, spiral conveyor, J, and cone, K, when the whole are combined for the purpose and in the manner set forth.

Second, I claim, in combination with the above vertical boiler, the semi-cylindrical concentrating boiler, N, when the same is constructed and arranged in the manner and for the purposes represented and specified.

26,575.—A. M. Dye, of Clinton, Ill., for an Improved Bed Bottom:

I claim the attaching of the traverse bars, d d, of the frame, A, to the side strips, c c, by means of the dovetail slides, e, and sockets or guides, f, provided with the screws, g, and attaching the bars, a, of the frame, B, to the side strips, b b, by means of the set screws, k, substantially as and for the purposes specified.

[This invention relates to an improvement in that class of bed bottoms in which wire upholstery springs are used to impart a requisite degree of elasticity. The object of the invention is to obtain a facile mode of straining or tightening the webbing of the bottom, and also to obtain a ready means for graduati g the stre gth or elasticity of the springs, as circumstances may require.]

26,576.—Lucius Eddleblute, of Garden Valley, Cal., for an Improved Amalgamator:

I claim the combination of the bars, b, with the inclined or bevel slats, a, and inclined top, A, and bottom, B, as shown, so that the water has an easy access, and in its fall first strikes the edges of the bars, b, and thus avoids the washing out of the quicksilver, all as set forth.

[This invention relates to an improvement in the riffles which are used for catching gold, and it consists in giving to said riffle a peculiar form, and constructing the same out of two parts which can readily be taken apart, so that access can be had to the gold which accumulates in the bottom of the riffle. The top part is provided with a series of slats which give free access to the water, and the bottom parts deepens towards the outlet, and is provided with a series of cross bars which form mercury cups, and which are so situated in relation to the slats in the top part, that the force of the water is broken before it strikes the mercury.]

36,577.—Seraphin Espach, of Cincinnati, Ohio, for an Improved Bedstead:

I claim the described arrangement and combination of parts consisting essentially of the foundation, J, and its springs, L M, posts, A, rails, C B, hooks, F, and their sockets, the braces, P Q, and their adjusting screw, O, and the lattice work-head and foot-boards, all substantially as and for the purpose set fo th.

26,578.—Francis J. Flowers, of Rahway, N. J., for an Improvement in Extension Seats for Carriages:

I claim the operation and combination of the raising bar, H, or its equivalent, with the parts, A and C.

Second, I claim the combination of the recess, I I, with the legs, B B.

Third, I claim forming the joints, L L L L, in combination with the boot, for the purp se set forth.

26,579.—Henry Garbanati, of Brooklyn, N. Y., for an Improved Carving Fork:

I claim the permanent spur guard, c, the fulcrum guard, b, in combination with a carving fork, substantially as described.

26,580.—Dennis C. Gately, of Newtown, Conn., for an Improvement in the Manufacture of India-rubber Belting:

I claim the improvement in the manufacture of machine belting or banding, composed wholly or in part of India-rubber or gutta-percha, the same consisting in rolling or winding up the belt or band with any suitable non-adhesive substance or composition interposed between its folds or layers, and then heating it, substantially in the manner and for the purposes described.

26,581.—Henry Gilliard, of Mount Hope, Wis., for an Improvement in Cultivators:

I claim the arrangement of the permanent circles, G, and jointed bars, J J, when the whole is constructed for joint operation, as set forth.

26,582.—John Gore, of Brattleboro', Vt., for an Improvement in Harvesters:

I claim the use of lever, M', constructed as described, in combination with the tapering draw bar, D, for elevating the cutting apparatus of the harvester, in the manner described.

26,583.—John Gray, of Nashville, Tenn., for an Improvement in Self-adjusting Counter Braces of Truss Bridges:

I claim the application, to counter braces in truss bridges, of a socket at the top, a heel and key at the bottom, by which the counter braces in truss bridges are made self-tightening and adjusting, as described.

26,584.—J. P. Grosvenor, of Lowell, Mass., for an Improved Machine for Planing Curved Surfaces:

I claim the employment or use of the adjustable or yielding feed rollers, L L, when combined with a bearing roller, M, or a proper bearing surface, and arranged relatively with each other, as shown and described, to admit of the feeding of circular, oval and serpentine forms to the cutters.

I further claim placing the rollers, L L, in an adjustable frame or box, G, fitted in an adjustable box, E, and used in connection with the elastic bars, N N, or their equivalent, and the bearing rollers, M, whereby the frame or pattern may be properly adjusted and retained in proper position between the rollers while being acted upon by the cutters.

26,585.—Joseph A. Grunwald, of New York City, for an Improvement in Circular Forms. Patented in France Sept. 20, 1859:

I claim, first, The manner of weaving in a horizontal circular plane by means of two or more wefts, and an arrangement of warps placed alternately above and below the weft threads, arranged and constructed in the manner substantially as described.

Secondly, I claim the arrangement of the weft bobbin carriage, in combination with the arrangement of regulating the tension on the weft thread, substantially as described.

Third, I claim the arrangement and construction of the tension levers, for the purpose of maintaining the tension of the warp threads as well as the friction against the warp bobbins, acting together in the manner and for the purpose substantially as set forth.

Fourth, I claim the arrangement of the serrated pulley, W, in combination with the rollers, W' W' W', operating together in the manner described, and for the purpose of delivering the manufactured article as fast as nished and at a regular tension, substantially as specified.

Fifth, I claim the arrangement of the disengaging gear, r, constructed as described, and for the purpose of throwing the loom out of gear as soon as one of the weft threads break, the same being operated by a lever attached to the weft bobbin carriage, and acted upon by the weft thread in the manner substantially as set forth.

26,586.—James Harrison, Jr., of New York City, for an Improvement in Sewing Machines:

I claim, first, The rotary needle guide disk, c, constructed and operated in the manner and for the purpose described.

Second, The arrangement of the following devices for holding and operating the shuttle, viz.: the arm, l, the revolving button, m, slotted to receive the arm, l, the shuttle case, o, rod, i, and its head, j, spring, k, and legs, h, all constructed and operating substantially as described.

Third, Constructing the shuttle ith the ridge and holes and thread space, as described.

Fourth, Inserting the lever bar, x, in the needle bar, w, and operating it as described.

26,587.—T. S. Heptinstall, of Mendota, Ill., for an Improvement in Gang Plows:

I claim the arrangement of the wheels, A B B, shafts, C and D D, spindle, E, triangle, F, rod, G, lever pole, H, regulator, I, and rollers, K K, as described, for the purposes set forth,

26,588.—Homer Holland, of Westfield, Mass., for an Improved Process for Making Sulphuric Acid:

I claim the generation of sulphuric acid by treating sulphides and itrates commingled in close vessels, in connection with the ordinary sulphuric acid chamber, and for the purpose substantially as set forth.

26,589.—Homer Holland, of Westfield, Mass., for an Improved Process for the Production of Sulphate and Oxyds of Copper:

I claim the production of sulphate of copper, together with the oxyds of copper, from its various sulphurets, by the use of the nitrate of soda, according to the process already described.

26,590.—Homer Holland, of Westfield, Mass., for an Improvement in the Mode of Treating Metalliferous Sulphurets:

I claim the treatment of metalliferous sulphides with the native nitrate of lime, or nitrate of lime and magnesia, in iron vessels, in the manner and for the purpose substantially as set forth.

26,591.—Jesse Jacobs, of Yellow Springs, Ohio, for an Improvement in Beehives:

I claim the "valve" composed essentially of the vestibule, D, an adjustable counter-weighted valve pedal, G, arranged and operating substantially in the manner and for the purpose specified.

26,592.—Aaron E. James, of Decatur, Ill., for an Improvement in Straw-cutters:

I claim feeding the straw towards the knife by means of two feed rolls between which the straw passes, when said roll sor cylinders are both operated simultaneously by the positive action of separate pawls, or their equivalents, working in ratchets made and arranged in said rolls, substantially in the manner and for the purpose described.

26,593.—Henry Bœhm James, of Trenton, N. J., for an Improvement in Watches:

I claim controlling the active length of the pendulous or hair spring of a watch, or other time-keeper governed by a balance, by means of combined lamine of different metals, so applied to act upon the end of the spring which has been commonly fixed that, by an increase or diminution of temperature, the said spring is caused to be taken up or let out through the curbpins, or their equivalents, and so to compensate for the expansion and contraction of the said spring and the balance, substantially as described.

26,594.—Geo. Jaques, of Somerville, Mass., for an Improvement in Preparations of Tobacco:

I claim, as a new article of manufacture, the described preparation of tobacco, consisting of the soluble and volatile portions, as set forth.

26,595.—James M. Jay and John Darmer, of Canton, Ohio, for an Improved Apparatus for Heating Water:

We claim the combination and relative arrangement of the parts composing the water-heater, substantially as and for the purpose set forth.

26,596.—Charles Kesler and Fred. Reinhard, of Columbus, Texas, for an Improvement in Cotton Seed-planters:

We claim the arrangement, in a hopper, of the roller, B, with stirring teeth, a, and feeding teeth, b, in combination with the perforated partition, C, and the distributing roller, D, substantially as and for the purpose specified.

[This invention consists in arranging, in a hopper, a roller armed with stirring and feeding teeth, in combination with an inclined perforated partition and a distributing roller with seed cells, which are filled by the action of the toothed roller, so as to ensure a correct distribution of the seed.]

26,597.—John R. King, of Raleigh, Tenn., for an Improvement in Cotton Cultivators:

I claim the arrangement of the frames, p q b c, and wing or mold-board, m, cast solid together, extra landside, g, with its tenons, d n n, and brace, a, with the cotton scraper, g, as described, for purposes specified.

26,598.—John B. Koch, of New York City, for an Improved Folding Bedstead:

I claim the combined arrangement of the shoulder, S, and eccentric, E, both situated below the rails and inside the bedstead, to secure the side rails in their proper place when the bedstead is unfolded, and at the same time to relieve the pins, C, of the strain, in the manner and for the purpose substantially as specified.

26,599.—Samuel Lessig, of Reading, Pa., for an Improvement in Horse Hay Rakes:

I claim the singletree, g, sliding bar, 3, spring, n, braces, 6, axle, z, bar, g, sleeves, r, beam, 8, braces, j, slotted teeth guides, i, rollers, c, arms, f, and co necting bars, l l, the whole being constructed and arra ged for operation, conjointly, as and for the purpose set forth.

26,600.—S. M. Logan, of Richmond, Ind., for an Improved Roofing Composition:

I claim the described composition, constructed and used substantially as and for the purpose specified.

26,601.—Thos. R. Markillie, of Winchester, Ill., for an Improved Excavating Machine:

I claim, first, The combination of the carrying wheel, C, as constructed and operated, with the reversible plow, so arranged for the purposes set forth.

Second, In combination with the carrying wheel, C, and plow, M, I claim the elevator, D, as arranged and operated for the purposes described.

Third, I claim the hinged wheel frame, b, as arranged and combined with the lever, d, and rack bar, f, for the purposes set forth.

26,602.—V. L. Maxwell, of Wilkesbarre, Pa., for an Improvement in the Manufacture of Gunpowder:

I claim the employment of alcohol in lieu of water as the vehicle to unite the particles of the ingredients of which the powder is to be composed, substantially as and for the purpose shown and described.

26,603.—Thos. J. Mayall, of Roxbury, Mass., for an Improvement in Apparatus for Forming Rubber Belting:

I claim, first, The use of the two rollers, u and v, acting together so as to form the belt into a gutter shape, whereby the first step in the process of folding the outside sheet or covering of rubber or gutta-percha over the body or inner fabric of the belt or band is effected, as set forth.

Second, The roller, x, having two tapering surfaces and a central disk, whereby the overlapping of the overlapping of the covering or outer sheet over the inner fabric is completed and the edges of the outer sheet or covering brought to a true and even line before being united.

Third, Bringing the two edges of the outer sheet or covering evenly together, so as to form a true and perfect joint and complete the formation of the belt or band by the employment of two or more rollers, arranged in relation to each other, so that the said belt or band shall be drawn partially around the periphery of either of all the said rollers, substantially in the manner as set forth.

Fourth, In combination with the machinery for forming the belt or band, I claim the device for cutting both the outer and inner sheets into straps of any desired width, as described.

26,604.—Wm. McLendon, of Greenville, Ga., for an Improvement in Cotton Gins:

I claim beveling the edges of the roll box from the saws, substantially as and for the purpose set forth.

26,605.—James T. Mercer, of Seneca township, Ohio, for an Improvement in Seed Planters:

I claim the arrangement of the handles, L, beam, M, pivot, i, stirrup, J, wheel, K, arms, b, lever, e, slide, d, hopper, c, spring, f, markers, a a, and coverers, h h; the whole being constructed as described for the purposes set forth.

26,606.—Peter Monaghan, of Camak, Ga., for an Improvement in Cotton Cultivators:

I claim, in combination with the hinged frame of a cotton cultivator, the spring, H, which is secured to the tongue of said cultivator, for the purpose of automatically raising the re r end of the machine when the same is released by the operator, substantially in the manner described.

26,607.—Richard Montgomery, of New York City, for an Improvement in Rolling Corrugated Metals:

I claim the combination and relative arrangement of the corrugating rolls, E E, with the holding and smoothing rolls, G G, forming roll, H, and carriage, e, operating in relation to each as and for the purposes set forth.

26,608.—Conrad Norpel, of Newark, Ohio, for an Improvement in Railroad Car Couplings:

I claim the arrangement, as described—

First, Of the jaw, A, with the beam, B, and pin, D, for the purpose aforesaid.

Second, Of the jaw, K, with the pin, L, combined with the coupling bar, q, and fish-tailed end, R, for the purpose described.

Third, Of the two wings, G G, combined with the slide, E, for the purpose described.

26,609.—A. B. Norris, of St. Louis, Mo., for an Improved Mode of Operating Sawmill Blocks:

I claim the use of a lever with a vibrating fulcrum, in combination with the dog or reciprocating carriage, f, or its equivalent, as the means of communicating motion to the slides or knees, P P, of saw mill head blocks, substantially as described.

And I also claim the combination of the cam lever, u, with the knee, P, and the means of operating the same for the purpose of securing the said knees, substantially as described.

26,610.—[Suspended.]

26,611.—Worden P. Penn, of Belleville, Ill., for an Improvement in Seeding Machines:

I claim arranging the grass seed hopper in front of the grain hopper, with the reflector, d, fixed against its under side, in relation to the grass seed box and the grain box, and the pipe, H, and the leader, T, as shown and described.

26,612.—Worden P. Penn, of Belleville, Ill., for an Improvement in Seed Drills:

I claim the arrangement of the endless chain, f, with the eccentric bar, T, and valve bar, t, with the valves, v, thereto attached, for the purpose of closing and opening the said valves and raising the flukes simultaneously, in the manner described.

26,613.—Napoleon B. Phelps, of Rochester, N. Y., for an Improved Auger:

I claim uniting and combining the terminating coil with the preceding one by means of the thin supporting wall, d, acting as a bruce to sustain and strengthen the cutting portion of the bit or auger, substantially in the manner and for the purpose shown as described.

26,614.—Bradford S. Pierce, of New Bedford, and Mason R. Pierce, of Mansfield, Mass., for an Improvement in the Manufacture of Porous Ware:

We claim the manufacture of porous drain pipes, and other vessels which require to possess the property of porosity, when formed from the ingredients set forth, and made to cohere by the process of tampering or other equivalent mode of pressure, as described, and receiving its porosity from the small proportion of water used in mixing the ingredients, as set forth and described.

26,615.—James W. Prentiss, of Pultney, N. Y., for an Improvement in Seeding Machines:

I claim the divided revolving cylinder, A, and slides, B, when made, arranged and operating as set forth, in combination with the peculiarly-formed spring teeth, G, with their cups, when made and used substantially as specified.

26,616.—Samuel N. Purse, of Ashley, Mo., for an Improvement in Harvesters:

I claim the arrangement and combination of the shafts, O and f, with the driving wheel and cutter, and the pinions, l m and n, as shown, for the purpose of changing the velocity of the knives in the manner described.

26,617.—Clinton Rice, of New York City, for an Improved Stair Carpet-fastener:

I claim the general combination and application of the main piece with the hook and eye, and the spring bolt and catching apparatus, as described and for the purposes set forth.

26,618.—Morgan L. Rogers, of Spring, Pa., for an Improvement in Cultivators:

I claim the arrangement of the hooked and double curved central box, C N, curved slotted arm, F, wheel, G, handles, H I, sliding plates, E D′, frame pieces, A B, and crosspiece, D, substantially as and for the purpose shown and described.

26,619.—Robert E. Rogers, of Philadelphia, Pa., for an Improvement in Steam Engines for Land Carriages:

I claim connecting the safety valve, the gage or try-cocks, and all the steam escape orifices of an engine and boiler, with a condensing apparatus, whereby the steam which may escape or be let off, either occasionally or continually, may be prevented from producing its peculiar harsh noise, as described.

26,620.—George W. Roney, of Bailey's Mill, Fla. (assignor to himself and Walter F. Lloyd, of same place), for an Improvement in Plows:

I claim, in combination with a beam, standard, handles and shoe, rigidly connected together, as shown, the hinging of the coulter, E, to the shoe at a, by its lower end, and the adjusting devices in the beam at its upper end, as stated and for the purpose set forth; the whole being constructed, arranged and operating as represented.

26,621.—Riley Root, of Galesburg, Ill., for an Improved Surveying Instrument:

I claim the arrangement of a revolving double spirit level adapted to a graduated circle, as seen in the drawing and set forth in the specification, for astronomical and engineering purposes.

26,622.—Christopher E. Rymes, of Charlestown, Mass., for an Improvement in Retainers for Hydraulic Presses:

I claim the arrangement and application of the two wedges and their operative screw shaft (provided with screws, as described) in the follower, and with respect to, and so as to operate with, slots formed and arranged in the bars, D D′, substantially as specified.

And, in combination with the slots and the wedges, and their operative mechanism applied to the follower, as described, I claim the elevating racks and pinions arranged in, and applied to, the follower and its upright bars, essentially in the manner as set forth.

26,623.—Richard S. Schevenell, of Athens, Ga., for an Improvement in Hernial Trusses:

I claim combining one or more spring pads, and one or more thigh straps, with the belt, by means of one or more clamps, c, screws, d, and nuts, e, applied substantially as specified.

[This invention consists in a novel mode of applying one or two spring pads, and one or more thigh straps, in combination with a belt for encircling the hips, whereby great facility is afforded for adjusting the pad to the person, and a truss is obtained which is very easy to wear and very effective in its operation.]

26,624.—Leander Shearer, of Duncannon, Pa., for an Improvement in Railroad Chairs:

I claim, in combination with the chair, B, formed with a lip, C, and ears, b b, the sliding securing block, E, and lugs, d′ d′ and d d, and cavities, e e, in the ends of the rails; the whole constructed and arranged to operate substantially as specified for the purpose set forth.

26,625.—Francis O. J. Smith, of Westbrook, Maine, for an Improvement in Electric Telegraphing Apparatus:

I claim the described new and improved mode of combination of apparatus, instruments and machines, used conjointly in the manner and for the purposes described, and dispensing therein with all artificial insulations of conducting circuits for telegraphic purposes.

26,626.—John Stephenson, of New York City, for an Improvement in Brakes for Horse Cars:

I claim arranging the brakes of a reversible car or other vehicle, substantially as described, so that the same can be applied from the driver's seat with equal facility, in whatever direction the car or vehicle may be turned.

[This invention relates particularly to one-horse city cars, which are usually so constructed that the body of the car revolves on the king-bolt, and that, at the termini of the route, the driver is enabled to drive the horse round, and to reverse the car without leaving his seat. Such cars were hitherto made without brakes, or so that the brakes could only be used in one direction. The object of this invention is a brake which can be applied with equal facility, in whatever direction the car may run.]

26,627.—B. F. Sturtevant, of Boston, Mass., for an Improved Lathe Attachment for Cutting Veneers:

I claim compressing the wood in the immediate vicinity of the edge of the knife, by means of the presser bar, C, or its equivalent, arranged and operating substantially as set forth.

Second, I claim the cutters E E′ E2, or their substantial equivalents, for the purpose specified.

26,628.—Charles F. Taylor, of New York City, for an Improvement in Apparatuses for Relieving Spinal Curvature:

I claim, first, A spinal supporter or assistant, in which two longitudinal dorsal plates or supports are jointed together in sections, in the manner described for the purpose set forth.

Second, Arranging the dorsal plates in the manner described, by which the pressure which is exerted in a forward direction is thrown upon the angles of the ribs, as set forth, instead of upon the vertebral braces or vertebral column, as formerly.

26,629.—Wm. Thomson, of Buffalo, N. Y., for an Improved Brush for Finger Nails:

I claim the combination of a stationary or movable cylinder, with a circular brush, as described, forming a new article of manufacture.

[The object of this invention is to form a neat and compact finger nail brush, with which the nail of each finger and thumb of one hand may be cleaned at the same operation. The invention will be fully understood by the above claim.]

26,630.—Samuel D. Tracy, of Vernon, N. Y., for an Improvement in Seed Cultivators:

I claim giving the zigzag or alternate opposite inclinations to the blades of the spur wheels, C C, in the manner and for the purpose set forth.

I also claim the combination of the movable or adjustable cutters, D D, and their slotted supports, g g, with the zigzag spur wheels, C C, in the manner and for the purposes specified.

I also claim the arrangement of the seed box, E, in grooves in the underside of the hinged seat, G, so as to be adjustable beneath it, removable therefrom, or turned up therewith, substantially as described.

I also claim the vibrating seed-distributor, I, constructed, operated and operating substantially as and for the purpose specified.

26,631.—John G. Treadwell, of Albany, N. Y., for an Improvement in Stoves:

I claim arranging the dampers, a and c, with the ventilating flue, E, and with the draft flue, in such a manner that the ventilating flue may be opened or closed while the draft flue is either open or closed, or vice versa; the damper, a, being made to subserve a double purpose, substantially as set forth.

26,632.—Walter J. Van Horn and Wm. Alexander, of Louisiana, Mo., for an Improvement in Machines for Preparing Plug Chewing Tobacco:

We claim a machine for preparing and cutting tobacco, consisting of a central cylinder, B, endless belts, C G, belt rollers, D, pressing rollers, F, receiving table, J, and cutting rollers, I I M N, or their equivalents, constructed, arranged and operating substantially as shown and described, so that the leaf tobacco, on being fed from the table, will be pressed, cut and delivered in the form of plugs, as set forth.

26,633.—Samuel Walker, of Kingston, Ga., for an Improvement in Plows:

I claim the arrangement of the beam, A, bars, D D, foot, B, and handles, E E, as shown and described, in order to admit of the adjustment of the parts as and for the purpose set forth.

[This invention consists in constructing the plow in such a manner that it will admit of being adjusted to suit the varying hight of teams, and also of men or boys who operate or hold it, as well as admitting of the adjustment of the share, as circumstances may require. The improvement is more especially designed for what are known as "shovel plows," used in the cultivation of southern crops; but it may be applied with advantage to other small plows used as cultivators in tilling growing crops.]

26,634.—J. W. Wetmore, of Erie, Pa., for an Improvement in Railroad Chairs:

I claim the use of a yoke band (as C) passing through notches in the heads and webs of the "T" or "H" rails at the joint, and keyed by a wedge under the plate, F; all combined, constructed and arranged substantially as described.

26,635.—Paul Williams, of Lodi, Miss., for an Improvement in Cotton Presses:

I claim the combination of the levers, H H and J J, with the levers, I I and K K, links, H′ H′, and projections, I′ I′; the whole arranged and operating substantially as and for the purposes set forth.

26,636.—Cyriel E. Brown (assignor to himself John Tenny and John Rhodes), of Millbury, Mass., for an Improvement in Spindles and Flyers:

I claim the arrangement of the secondary or tubular stationary bearing, d, with the flier and spindle as described.

Also the combination of a helical eye with the flier arm and its hook, and to open in the hook.

Also, making the top of the bearing, d, and that of the flier neck with an oil channel so arranged as not only to receive or catch the oil that runs off the spindle, but direct or conduct it between the rubbing surfaces of the said neck and bearing.

I do not claim an oil cap as ordinarily applied to the foot of a spindle, nor as applied to a cop tube and spindle, as shown in the United States Patent, No. 16,298; but I claim combining or arranging an oil receiver and bearing, e, with the secondary bearing tube, d, and so as to surround it, the spindle and flier neck, substantially in the manner and for the objects and purposes as specified.

26,637.—Franklin B. Hunt (assignor to R. D. Van Deursen and J. B. Gibbs), of Cincinnati, Ohio, for an Improvement in Straw-cutters:

I claim the described feeding device, consisting essentially of the rolls, Q L, link bearings, M, rest blocks, V, and springs, W, all arranged with reference to each other, and so as to operate conjointly as and for the purpose set forth.

26,638.—James Rowe (assignor to himself and Martin B. Ewing), of Cincinnati, Ohio, for an Improvement in Sewing Machines:

I claim the bar or bracket, h, on the lower end of the needle bar, so that it shall drive, in combination with the looper bar, k k′, and the feeding levers, j o, by positive movement, when it is driven by the crank pin, b′; all operating in the manner and for the purpose set forth.

26,639.—Charles H. Watson (assignor to himself, A. L. Ashmead and E. W. Carr), of Philadelphia, Pa., for an Improved Portable Register:

I claim, first, A portable alarm register constructed and operating substantially as described.

Second, The dogs on the annular plates, in combination with the pins on the inner front plate, as described.

Third, The combination of the dogs with the notches or pins of the annular plates, and the openings in the rims through which the dogs operate, as described.

26,640.—Mary E. Hemans (Administratrix of the Estate of Alva Hemans, deceased), of Henderson, Texas, for an Improved Peach-parer:

I claim the combination of the rotating and elastic or yielding tines or prongs, b b, knife stock, I, and plate or bed, G, arranged for joint operation as and for the purpose set forth.

[This invention consists in the employment or use of a revolving holding fork provided with elastic tines or prongs, in connection with a paring knife attached to or fitted in a stock arranged in a novel way to admit of being manipulated with the greatest facility in order to perform the desired work.]

26,641.—Joseph Gruler and Augustus Rebety, of Norwich, Conn., assignors to the Manhattan Fire-arms Company, for an Improvement in Revolving Fire-arms:

We claim the use of the intermediate recesses, r r, in combination with the stop, d, actuated by the hammer in pistols where the cylinder is revolved in the act of cocking the pistol, as herein described, thereby effecting a self-acting lock of the cylinder, midway or otherwise between any two cones.

EXTENSION.

James Montgomery, of New York City, for an Improvement in Steam Boilers. Patented Dec. 26, 1845:

I claim the employment of vertical or nearly vertical water tubes for steam boilers or generators that open into water chambers at top and bottom, which water chambers are connected together by a surrounding jacket or water space made singly or in sections to admit of the free circulation of the water which, rising in the tubes by the effect of the heat, will descend in the surrounding jacket or external water space or spaces, and thus by this circulation carry off the heat from the tubes and prevent them from overheating, as described, when this is combined with the fire-chamber placed at the side of the boiler and outside of the series of tubes, substantially as described, whereby the tubes are prevented from being overheated and unequally expanded to an injurious extent, and the water kept cooler in the jacket than in the series of tubes, as described.

I also claim as my invention, in combination with vertical or nearly vertical tubes and surrounding water space or spaces, the employment of a fire-chamber outside of the series of tubes and so arranged and located, substantially as described, as to apply the most intense heat at their upper ends and the reduced heat towards their lower ends, substantially as described, whereby a greater circulation and evaporation are obtained, with a given amount of fuel, than by any plan known to me, thereby not only economizing fuel but effectually preventing the incrustation of the tubes by the deposit of mineral and other solid matters, as described.

I also claim as my invention the employment of a diaphragm or partition in the flue space between the series of tubes surrounded by the water space or spaces, and in combination therewith to divide the same into two parts that the products of combustion after passing around the upper end of the tubes may pass around their lower ends, substantially as described, and thus more effectually expose the upper end of the tubes to a more intense heat than their lower, as described. And I also claim the making of the bottom of the boiler of a conical or dished form, with a mud or blow-off valve in he lowest part of the concavity, in combination with the vertical tubes communicating with the bottom in the manner described, to permit the deposit of the sediment; there being a water space surrounding them to induce circulation of the water up the tubes towards the mud or blow-off valve, as described.

RE-ISSUES.

James Draper, of Hudson City, N. J., assignor to himself and S. H. Doughty, assignors to themselves and James Brown and William King, of New York City, for an Improvement in Skeleton Skirts. Patented Oct. 4, 1859:

I claim the new manufacture of skeleton skirt herein described, in which the hoops, B, are fastened between separately woven parts of the tapes, substantially as described, when the parts are woven together as single tapes between the hoops, and separately as distinct tapes at the points where the hoops are received.

R. Gleason & Sons (assignees of R. Gleason, Jr.), of Dorchester, Mass., for an Improved Table Caster. Patented March 8, 1859:

We claim, first, The combination of the caster and egg-stand.

Second, The combination of the caster and bell.

Third, The combination of the caster, egg-stand and table bell, substantially as described.

[This invention consists in combining an egg-stand, caster and bell, whereby either article may be used separately, or the whole or certain parts, in combination.]

James McCracken, of Bloomfield, N. J., for an Improved Evaporating Apparatus. Patented March 13, 1855:

I claim a pan for containing solutions to be heated in combination with a vessel contained therein, the top and bottom of which are connected by a series of vertical or nearly vertical tubes the interior of such vessels being connected with proper pipes for the supply of steam and the escape of steam or condensed vapor, and the whole being constructed substantially in the manner and for the purpose set forth.

Giles F. Filley, of St. Louis, Mo., for an Improvement in Cooking Stoves. Patented June 14, 1853:

I claim, first, The flaring enlargement of the side flues, C C, and D D, from the space above the oven to the flue space, E, which extends under the entire front end of the oven; and also the flaring enlargement of the central flues of F and of G, from the flue space, E, to the upper end, G, for the purpose of increasing the draft of the stove, substantially as set forth.

I also claim separating the front of the oven from the front plate of the stove and also from the hearth plate and from the back plate of the fire-chamber, by means of the flue space, H, which communicates freely with the flue space, E, and is closed at all other points; the said arrangement enabling the flue space, H, to arrest the great amount of heat that will be radiated from the back plate of the fire-chamber, and conduct the same (by means of the circulation which it will create in said flue space) into the flue space, E, for the purpose of producing the beneficial results herein particularly set forth.