

FOREIGN SUMMARY—METALS AND MARKETS.

The price of gas in most of the cities of Great Britain is less than one half that of New York. In London it is only four shilling sterling (not quite a dollar) per 1,000 cubic feet. Mr. Flintoff, in delivering a lecture on this subject recently in Glasgow, stated that, while five shillings per 1,000 cubic feet were charged in the Scottish city, or one shilling more than in London, the coal was one shilling less in price; thus proving that companies which had the monopoly only regarded their own interests and made all they could out of the people. He asserted that gas-making was not that mysterious operation some imagined, and that a new company could manufacture gas in Glasgow with a reasonable profit, at two shillings and eleven pence per 1,000 cubic feet, not one-third the price of New York gas.

Messrs. Burns, of Glasgow, the principal stockholders of the Cunard steamers, are perhaps the greatest steamship proprietors in the land. They have lately contracted, in conjunction with Mr. Mac Ivor, of Liverpool, another proprietor, for six new large iron screw steamers, four for the Mediterranean service, and two for the Glasgow and Liverpool trade. Besides these, they have also either four or five still larger steamships in the course of construction for the Atlantic trade between Liverpool and American ports.

A new screw steamer, called the *Thetis*, of 680 suns burden lately made the passage between Greenock and Liverpool, burning only 1,018 lbs. of coal per horse power, per hour. No less than four and five lbs. are generally consumed in steamers per horse power.

Returns of the mineral wealth of England for 1859 have just been published. It amounts to £31,250,000 sterling in value. Of coal there were 65,008,649 tons raised, of iron, smelted from the ore, 3,456,064; copper, 14,456; lead, 68,303; tin, 6,920; silver, 569,345 oz. The yield of copper ore was 226,852 tons.

A great trial of reaping-machines, recently took place in Belgium on the very field where the famous battle of Waterloo was fought. It was announced beforehand that 26 machines would compete for the prize, but only four entered into the contest. These were Burgess & Key's (McCormick's), Bell's (Scottish), J. A. Teelan's (Hussey's), and Cranstoun's (Woods). These were all American reapers, with one exception. The prize was awarded to Bell's, and this gave great dissatisfaction to most persons present, because it was held to be inferior in many respects to two of the others. It cut the grain (oats) very well, but it could only be turned with great difficulty, and was not very manageable. It laid the cut grass beautifully in swaths, and this appears to have been the main merit which it possessed. Burgess & Key's machine was of superior construction, and in a subsequent trial (not for a prize) it cut a field of trefoil, which Bells' had failed to do, and the machine was instantly purchased by one of the jury who had awarded the prize to the Bell machine. These statements are taken from the Brussels *Messenger*.

In several of the seaports in England schools have been provided for training boys for the mercantile marine. The government has given the old frigate *Conway* to Liverpool for a school, and great efforts are being made to elevate the character and qualifications of the common sailor. Hitherto such efforts have been confined to government-dockyards, in training youths for the navy. The low character which sailors have acquired in American ships, by our ship-owners employing the scum of all nations, forcibly calls for some great effort to revolutionize our entire mercantile marine, and a school for training boys in New York should be tried to see what effect it will produce. We think it would work well, if conducted upon correct principles.

It has been announced that a great reduction was about to take place in the French tariff on foreign metals, and hence we find that, as a consequence, pig-iron has become firm in expectation of a large demand from France. The prices in our table are unchanged since our last, but in consequence of reports that Louis Napoleon is in favor of free trade, great expectations have been excited among the metal-workers of Sheffield and Birmingham in regard to large demands soon to be made for their cheap manufactures.

American candles, with S. R. Weeden's wick, manufactured at Providence, R. I., are on the track of British tallow candles, with Palmer's patent wick, in South

America, and beginning to supersede them in some instances. The wick in these candles is self-consuming, and requires no snuffing—a very important improvement in tallow candles.

PRICES OF FOREIGN METALS, SEPT. 5.

Table with columns for metal types (Iron, Steel, Lead, etc.), weight/unit, and price in £ s. d. and £ s. d. formats.

[The above are prices within three per cent discount, the pound being valued at \$4.85.

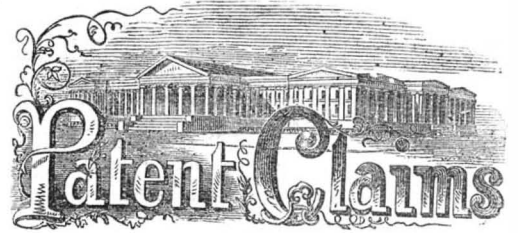
New York Markets.

Detailed market price list for various commodities including COAL, COTTON, FLOUR, GLASS, IRON, LEAD, LINSEED, RESIN, SPELTER, STEEL, TALLOW, TIN, TURPENTINE, and ZINC.

The demand for flour has been somewhat more lively during the past week.

There was a large supply of fat cattle during the week, 5,980 having been received mostly from the West, and they sold as low as 8½c. a 9c. per pound.

A circular issued from the office of the *Shipping and Mercantile List*, No. 58 Pine-street, contains a statement of our total cotton crop for the year ending August 31st. The crop of Sea Island was 49,089 bales against 40,566 in the previous year, and the increase of the entire crop of all kinds for the year was 707,619 bales.



ISSUED FROM THE UNITED STATES PATENT OFFICE FOR THE WEEK ENDING SEPTEMBER 13, 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.

25,375.—Henry Adams, of New York City, for an Improvement in Saddle-trees: I claim a tree for side or ladies' saddles, constructed by connecting the bars, A, by a bridge, B, at the point specified, and with an open space, a, between the front ends of the bars, at their junction with the horns, C, D, for the purpose set forth.

25,376.—Geo. S. Avery, of Cross River, N. Y., for an Improvement in Rails for Railroads: I claim an improvement in railroad iron bars or rails by an offset or bend, made in one end of the rails, and the lapping on of the other end of the rails, and inserting a key between them at the lap, and riveting or bolting them together, substantially as and for the purposes described.

[An engraving and description of this invention will appear in our columns in the course of a few weeks.]

25,377.—O. S. Bartlett, of Romulus, N. Y., for an Improvement in Ditching-plows: I claim the combination of the arms, D, D, D, brace, H, rods, d, d, and blocks, F, I, substantially as and for the purpose set forth. I also claim the mode of attaching and adjusting the shares, E, E, E, by means of the packing blocks, I, I, in combination with the bolts b, b, and arms, D, D, substantially in the manner specified.

25,378.—A. F. Blunk, of Indianapolis, Ind., for an Improvement in Straw-cutters: I claim a straw cutter, constructed as shown and specified, that is to say, with angular knives, T, arms, K, wheel, E, feed rollers, B, C, and D, slides, P, S, springs, O, band, N, pulleys, J, J, and endless belt, I, when these several parts are constructed and arranged to operate conjointly, as and for the purposes described.

25,379.—E. K. Breckenridge, of West Meriden, Conn., for an Improvement in Window-sash Fasteners: I claim the employment or use of two cams, B, B', placed on a common arbor, h, with a spring, E, F, applied to them and a lever, C, the whole being fitted within a frame, A, and arranged to operate substantially as and for the purpose set forth.

[This invention consists in placing two cams on a common arbor, and connecting both by a single spring, the parts being placed in the sill of the window casing, and in such relation to the sash as to bear against its edge; one cam retaining the sash in an upward position, at any desired height within the scope of its movement, and consequently opposing a downward movement, and the other cam opposing an upward movement, and thereby retaining the sash in a downward position, either cam being moved or adjusted when required, for the purpose of raising or lowering the sash by means of a lever.]

25,380.—Z. B. Brown and M. C. Godard, of Granby, Conn., for an Improvement in Seed-planters: We claim the arrangement and combination of the carrier and stamping wheels F, F, cams and marker device I, upon the wheel F, the reciprocal levers, H, H, seed slides or valves, D, D, hoppers, B, B, drill formers, J, J, and covering shares, K, K, substantially in the manner as and for the purpose described.

25,381.—J. S. Buell, of Buffalo, N. Y., for an Improvement in Sewing Machines: I claim, first, in combination with the stationary corrugated surface, O, O, the corrugated foot-piece, Q, constructed, arranged and operating therewith, as set forth. Second, I also claim, in combination with the needle or its thread, the conical spool, X, and guide, U, for causing the slack in the thread to form the loop, and holding said loop from turning until seized by the looper, as set forth and explained.

25,382.—Stephen Burrows, of Lima, Wis., for an Improvement in Seed-drills: I claim the employment of a grooved ring, B, C, fitted on the axle or shaft of a seed drill, in combination with the peculiarly constructed tube, D, E, leading from the hopper into the groove of the ring, substantially as and for the purposes set forth.

25,383.—Wm. Campbell, of Waterloo, Pa., for an Improved Churn: I claim the perforated and hinged floats, F, as an Improvement in the construction of dasher-heads for churns.

25,384.—Rosanna Carpenter, of Medford, Mass., for an Improvement in Extracts of Fruits: I claim, as a new article of manufacture, the above-described extract of fruit, prepared in the manner substantially as specified.

25,385.—R. P. Clark, of Johnstown, N. Y., for an Improvement in Handmills for Grinding Apples, &c.: I claim the described improved handmill for household use, in reducing apples, potatoes, and other fruits and roots to pomace; the teeth, e, l, of the combined cylinder, and adjustable yielding concave being formed and arranged in the particular manner set forth.

25,386.—Barnes Clayton, of Philadelphia, Pa., for Improved Fasteners for Shirt Studs: I claim the hollow sliding case, A, and spring, B, in combination with the tie, or post, E, and the bar, D, the same being arranged to operate together, substantially in the manner and for the purpose set forth and described.

25,387.—P. S. Clinger, of Conestoga Center, Pa., for an Improvement in Wire Fences: I claim the combination of the pin, S, with the ratchet, T, in connection with the mortised posts, and the hooked wires, H, W, when these several parts are arranged substantially as described for the purpose set forth.

25,388.—T. T. and H. W. S. Collier, of Laverna, Texas, for an Improvement in Cotton-seed Planters: We claim the arrangement of the distributor, E, and the stirrer, H, constructed as described, to operate in combination with the packing wheel, I, substantially as and for the purpose set forth. [The principal object of this invention is to obviate the difficulty of distributing cotton-seeds evenly from a hopper. For this purpose there is arranged in the hopper a stirrer made of rods of iron which pass through disks at the ends which stirrer revolves about the axis]

tributor and forces the seed into the seed cells. The seed cells are formed by cutting ratchet teeth into the face of the revolving cylinder called the distributor, and receive the seed from the hopper and carry it down into the discharging tube which passes down through the hollow shaft of the planter. A broad wheel follows the shaft and presses the earth around the seed.]

25,389.—Henry W. Colvin, of Pendleton county, Ky., for an Improvement in Sights for Fire-arms:

I claim the semi-circular form of the fore-sight with its range-piece or head and shades, and triangular form of the hind-sight with its needle, or range and shades, substantially as described and for the purpose set forth.

25,390.—George Cook, of Paris, Ill., for an Improvement in Rotary Harrows:

I claim the arrangement of the teeth, d, placed eccentrically on triangular frames, E, which rotate on oblique pivots, c, substantially as and for the purpose specified.

[This invention consists in arranging the teeth of a rotary harrow on triangular frames which revolve on oblique pins, said teeth to be set on lines which do not pass through the centers of the frames, so that they clear themselves more readily and cause the frames to revolve without any extra weight.]

25,391.—Solomon Crowell, Jr., of Palmyra, N. Y., for an Improvement in Coffee-pots:

I claim the combination of the perforated diffusing-chamber, C, having a tight conical bottom, f, with the concentric perforated digester, D, whereby the coffee is exposed in a thin layer of nearly uniform thickness, to the water percolating nearly uniformly through all parts, for the purposes specified.

25,392.—Henry Davis, of Baltimore, Md., for an Improvement in Brakes for Railroad-cars:

I claim increasing the frictional action of the car-brakes upon the peripheries of car-wheels, by the introduction of sand or its equivalent, between the frictional surfaces, at the time that the brakes are brought in contact with the car-wheels, substantially as set forth.

25,393.—David Decker, of New York City, for an Improvement in Pianoforte Actions:

I claim, first, Attaching the relieving-jacks, regulating screw, F, directly to the key or to some part carried by the key, so that the repeating lever shall govern the action of the relieving-jack by or through the said regulating screw, whether constructed in this precise manner, or in an equivalent, for the purpose described.

Second, I claim the groove in combination with the tongue, pin, or equivalent, for the purpose of keeping the lifting-jack in its proper position in relation to the repeating lever, and for preventing any binding or sticking of said repeating lever and lifting-jack.

Third, I claim so arranging the adjustable piece, D, and repeating lever, E, both or either of them, so that their regulating screws, D², and F, both or either of them shall be at or near the end next toward the front of the key, in front of the hammer rail, for the purpose of being thus conveniently placed for regulating.

25,394.—Sylvanus A. Denio, of Boston, Mass., for an Improved Prison Lock:

I claim the lock or part, b, with its parts, c e i and k, arranged with each other as described, to move, hold and lock the bolt, k, in door, l, when combined, positioned and secured with lock, h, which in turn locks the shaft, a, all by turning a single knob; all the parts being constructed and operated in the peculiar manner described and for the purpose set forth.

25,395.—Simcon Dodge, Jr. and Benjamin Potter, Jr., of Marblehead, Mass., for an Improved Heel for Boots and Shoes:

We claim as a new article of manufacture, a heel having a concave seat, and a flat tread, with its rises united by cement, as set forth.

25,396.—Thomas Dougherty, of Macon, Ga., for an Improvement in Switch-stand for Railroads:

I claim the combination of eccentric, B, with the pin, C, through lever, D, to bar, E, for the purpose of locking and unlocking the main pin, A, to and from notches, M M M, substantially as and for the purposes set forth.

25,397.—Eugene Duchamp, of St. Martinsville, La., for an Improved Faucet:

I claim the arrangement and combination of the oblique slot, G, handle, F, stem, C, and tube, A, so that on turning the handle, F, the stem, C, will rise and fall with a spiral or screw movement, thus ensuring ease of operation, and tightness of packing, as shown and described.

25,398.—Eugene Duchamp, of St. Martinsville, La., for an Improved Filter:

I claim the employment of fine spun glass arranged in the manner and for the purposes set forth, in combination with the reservoir, G, floating valve, J, chamber, E, and pure water chamber, F, essentially in the manner represented and described.

25,399.—Eugene Duchamp, of St. Martinsville, La., for an Improvement in Apparatus for Heating Water:

I claim the combination and arrangement with the false bottom, G, and tank, A, of the perforated casing, D, fire-chamber, C, draft-pipe, F, smoke-pipe, H, as and for the purpose shown and described.

[This invention consists in placing within a cylinder or outer casing perforated at the top and bottom, a smaller cylinder, which latter serves as a fire-chamber; these are placed in the center of a tub having a false bottom, so that when the water, clothes and soap are put around the boiler in the tub, and a fire made in the inner chamber, a constant rotary current of the water in the tub will be obtained, and the dirt carried to the bottom of the tub.]

25,400.—John Fasig, of West Salem, Ohio, for an Improved Mop-head:

I claim the herein-named construction of a mop-head, consisting of the piece, B, with the slot, C, and hole, D, in combination with the rod, E, and notches, a, e, screw and nut, G, when the several parts are arranged and operated substantially as set forth.

25,401.—Jacob Fassnacht, of New Milltown, Pa., for an Improvement in Harness:

I claim the device of combining the hip-strap and breech-band in one continuous piece, A, for each half, united at B B, to form the breeching, as set forth.

25,402.—William R. Fee, of Cincinnati, Ohio, for an Improvement in Hydraulic Oil Presses:

I claim, first, The peculiar construction of the dies, D², and followers, D, having the grooves, G, and conduits, G², and also the oil passages, d, to facilitate the expression of oil, substantially as set forth.

Second, I claim the solid truss, K, when made a part of the press, and worked by means of the rack and pinion, substantially as set forth and for the purposes described.

Third, I claim the hinged hoop, F, for charging the press, substantially as set forth.

25,403.—J. H. Frampton, of Hopewell, Ohio, for an Improvement in Cultivators:

I claim the adjustable share standards, G G, attached to the parallel adjustable bars, D D, which are secured to the beam, A, by the bars, E E², the whole being combined and arranged substantially as and for the purpose set forth.

[This invention consists in a novel way of attaching the shares to the plow whereby they may be readily adjusted nearer together or further apart, or higher or lower, as the nature of the work may require.]

25,404.—Daniel K. France, of Congress, Ohio, for an Improved Churn Dash:

I claim the metallic strips, B, attached to the convex surface of the slats, by slots and screws, and operating in the manner and for the purpose substantially as set forth.

25,405.—C. L. Gilpatrick, of Saco, Maine, for an Improved Churn:

I claim the combination of the crank-shaft, D, and staffs, B B, with the top, A', when said top is provided with boxes, F, in which play slides through which the staffs pass, the same being arranged and operating substantially as and for the purpose specified.

25,406.—Elias J. Hale, of Foxcroft, Maine, for an Improvement in Lamp Chimneys:

I claim contracting the chimney above the flame, and admitting at or near the same point, a current of air, in the manner and for the purpose substantially as set forth.

25,407.—Robert Hale, of Roxbury, Mass., for an Improved Exhaust-pipe for Steam-engines:

I claim an exhaust pipe, constructed as described, and having an opening, B, and a steam pipe, C, in combination with a lip, I, operating in the manner set forth, for the purpose specified.

25,408.—William Hamilton, of St. Catharine, Mo., for an Improved Excavator:

First, In combination with an excavator frame constructed as described, having the side timbers braced in front only, I claim four wheels, when arranged in relation to the said frame, substantially as described, so that a common cart may either be backed between the hind wheels, or pushed over said wheels and frame, under the excavator, when the same is hoisted to be discharged, as specified.

Second, The combination of an excavator with a frame having the rear ends of each of the side timbers bifurcated for the reception of the wheel, the same being arranged to turn on a pin or journal, extending transversely through the two forks, as described.

Third, I claim the peculiar arrangement of hanging the excavator to the frame by means of arms, the same being so pivoted at the ends respectively to the excavator and side timbers, as that they shall be exposed to a tensile strain in the draft line, or thereabout, during the excavating operation of the machine, substantially as shown and described.

25,409.—Stephen P. Hart, of Boston, Mass., for an Improvement in Barrel Syringes:

I claim the spring, g, as applied to the syringe, operating in the manner substantially as set forth.

25,410.—Malachi B. Hassler, of Columbia City, Ind., for an Improved Churn:

I claim the arrangement of the hinged curved leaf, g, in combination with the wings, f f', constructed and arranged to operate substantially as described, for the purposes set forth.

25,411.—R. K. Hawley, of Baltimore, Md., for an Improved Construction of Segmental Circular Saws:

I claim a segmental veneer saw, the blades of which are formed, hung and clamped in the manner described.

25,412.—David Hinman, of Berea, Ohio, for an Improvement in Grinding the Teeth of Mowers and Reapers:

I claim the circular grooves, a a, on the faces, e e, of the grindstone, in connection with the standards, F F' G G', and holder, H, arranged and operating in the manner specified.

25,413.—W. W. Hollman, of Eddyville, Ky., for an Improved Mangle:

I claim the combination of the levers, K J K' J', with one of the rolls, and balancing lever, H H', substantially as and for the purpose set forth.

25,414.—W. H. Hortsmann, of Brooklyn, N. Y., for an Improved Mode of Manufacturing Telegraph Cables:

I claim constructing the cable by the apparatus, substantially as described, consisting of the reservoirs, wrapping apparatus, &c., or their equivalents, as specified.

I also claim the final reservoir, m, for coating a telegraphic cable after it has passed all the other apparatus, and before it has entered the water or ground, constructed and applied substantially as specified.

I also claim the manufacturing of the cable, substantially in the manner described, at the time it is laid, so as to perfect it and at once launch it into the place where it is to remain, whereby I avoid all the chances for injury and imperfections arising herefrom, growing out of stowing and handling the cable after it has been made, as heretofore has been done.

25,415.—A. H. Inskip, of Middleburg, Ohio, for an Improvement in Harvesting Machines:

I claim, first, The arrangement of the revolving spiral cone-shaped cutter or gatherer with the base of the cone in front, to gather up and draw the grain back to either stationary or reciprocating cutters, substantially as described for the purpose specified.

Second, The combination of the spirally-formed gatherer or cutter, arranged as described, with the divider, D, guards, D' D', and stationary cutters, e, substantially as described, for the purposes specified.

25,416.—W. D. Johnson, of Raleigh, N. C., for an Improvement in Cultivators:

I claim the bars, A A, curved so as to form handles at one end, and having horizontal oblique positions to form the body of the frame, the draft bar, C, and guide or retaining bar, D, the front ends of the bars, A, being connected or secured together by the collar or loop, B, in combination with the double scraper, F, substantially as described and for the purpose set forth.

[This invention consists in a peculiar manner of constructing the frame of the implement, whereby the same may be readily adapted for the cultivation of crops, and at the same time a very economical device obtained.]

25,417.—W. D. Johnson, of Raleigh, N. C., for an Improvement in Seeding-machines:

I claim the arrangement of two distributing slides, E F, with the projections, H H, on the wheels, C C, and two or more compartments in the hopper, B; inclined tube, G, inclined draught bar, B, and adjustable roller standard, I, substantially as and for the purpose set forth.

[The object of this invention is to obtain a seeding-machine capable of planting two different kinds of seed in alternate hills, and also drop therewith a fertilizing material in such a manner that a stratum of earth will intervene between the fertilizer and seed, so that the germinating principle of the latter will not be injured by direct contact with the former. The invention also has for its object the ready adjustment of a gage roller to vary the depth of the furrow according to the depth the seed may require to be planted.]

25,418.—Morris L. Keen, of Rogers Ford, Pa., for an Improvement in Boilers for Making Paper Pulp from Wood:

I claim a boiler for boiling, under pressure, wood and ligneous materials for making paper pulp, constructed with an expansion chamber, stirrer and discharge valve or cock, arranged for the purposes and in the manner substantially as set forth.

25,419.—Asa M. Keith, of Kosciusko, Miss., for an Improvement in Cultivators:

I claim the arrangement of the double scraper, the hoe drum and the hillers or coverers, in their relation to each other and to the parts of the frame to which they are attached, as and for the purposes set forth.

25,420.—John C. Kimball, of New Haven, Conn., for an Improvement in Movable Tops for Carriages:

I claim so constructing the standards or supports of a standing carriage-top, and attaching them by means of screws, that the top and standards or supports may be readily removed, when the whole is constructed and connected substantially as described and for the purposes set forth.

Second, I claim the combination of the standards with the body when the standards are secured by being screwed into the upper ends of the studs, and the whole is constructed, arranged and made to serve the purpose intended, substantially as described.

25,421.—Nelson J. Knapp, of Chicago, Ill., for an Improvement in Locomotive Lamps:

I claim the combination of the ellipsoidal and paraboloidal reflectors, E D, and burner, C, arranged substantially as and for the purpose set forth.

25,422.—Jesse Ladd, of Holderness, N. H., for an Improved Machine for Arranging Pegs:

I claim a machine or combination, consisting of the following devices, or their mechanical equivalents, viz:

1. The grooved cylinder, D, furnished with a hopper or other proper means of supplying it with pegs.
2. The guiding receiver, H.
3. One or more advancers, L L, and the operative mechanism thereof.
4. A device or mechanism for discharging from the guiding receiver, H, the refuse pegs.
5. The springs, N N, or devices for preventing the discharge of the pegs from the guiding receiver, when they may be disposed therein with their butts in advance of their points.
6. The receiving spout, M.
7. The peg-carrier, O, and—
8. Mechanism for advancing the pegs through the said carrier.

I also claim, in combination with the said machine, or its hopper, and grooved cylinder, an agitator, E, or means of shaking or agitating the mass of pegs in the hopper, or its conductor.

I also claim, in combination with the said machine, or its receiving spout, M, the serrated bar, P, operated as described, or mechanism for insuring the descent of the pegs within the receiving spout, as specified.

I also claim, in combination with the said machine, or with the receiving spout and peg-carrier thereof, the device or part, U, made to operate in manner and by means substantially as specified.

I also claim, in combination with the said machine, or with the receiving spout, M, thereof, the door, R, and its operative mechanism, whereby the surplus pegs may be discharged from the spout after it may have become sufficiently supplied with pegs.

I also claim, in combination with the said machine, or its spout, M, the finger, O', or equivalent, to be operated in manner and by means, and for the purpose substantially as described.

25,423.—Augustus Lafever, of Battlecreek, Mich., for an Improved Board-measurer:

I claim, first, The employment or use of the cone gears, E J, and sliding pinions, F L, in connection with an endless toothed or serrated chain, T, fitted within a suitable case, arranged with gearing and indexes, and with or without the arm, C and lever, D, substantially as and for the purpose set forth.

Second, The arrangement of the yielding frames, H K, with the pinion, F, and cone gear, J, respectively attached to levers, b' c' g' h', and racks, a' f', substantially as and for the purpose specified.

[The object of this invention is to obtain a portable instrument or device by which the aggregate number of square feet in a lot of lumber composed of pieces of varying lengths and thicknesses, may be ascertained by simply laying the instrument transversely over the pieces in the direction of their width, the instrument being capable of adjustment to suit the length and thicknesses of the pieces.]

25,424.—John S. Lash, of Carlisle, Pa., for an Improved Dumping Cart:

I claim the employment or use of the curved or segment rack, F, attached to the rod, A, and provided with the ledge, i, the pinion, G, and hooks, I I', arranged for joint operation as and for the purpose set forth.

I further claim the rod, H, provided with the spring, r, and connected to the sliding or pressure bar, I, provided with the arm, p, the above parts being applied to the cart, and arranged relatively with each other, to operate substantially as and for the purpose set forth.

[This invention consists in applying to an ordinary dumping-cart a segment rack and pinion, spring and pressure bar, in such a manner that the cart body may be readily tilted by the attendant and its load dumped, and the body made to right itself or assume its original position automatically by the forward movement of the cart.]

25,425.—Wm. Lees, of Germantown, Ohio, for an Improvement in Corn-planters:

I claim the cylinders, d d', in combination with the hoppers, e e', with reference to the feed bar, D, arranged to operate substantially as described.

25,426.—Ferdinand C. Lighte, of New York City, for an Improvement in Pianofortes:

I claim, first, The crystal reverberator, G, of glass, or other material, applied below or at the back of the sound-board, in combination with openings, a a, therein substantially as and for the purpose described.

Second, The insulators, f f, applied between the iron frame or plate, G, and the wrest plank and wooden blocking of the instrument, in such manner that the said frame or plate will bear upon the plank and blocking only at few points, substantially as and for the purpose described.

25,427.—Geo. Lindsey and Wm. Cameron, of Petersburg, Va., for an Improvement in Tobacco Presses:

We claim a portable hydraulic jack, or other powerful press, so constructed as to be readily applied to an ordinary, or to a series of ordinary screw presses, for the purpose described, and adjustable as to height on the truck on which it rests, in combination with the railroad track, F, right angles with the track, B, when said press is used for increasing the pressure of the screw press and converting it into a retaining press, substantially as and for the purpose described.

25,428.—John H. Lyon, of New York City, for an Improved Lock and Detector:

I claim combining with a padlock, or any lock provided with a shackle, a supplemental shackle, arranged with a lead or soft metal tube, so as to be temporarily secured thereby to the lock case, and admitting of being released only by the severing of said tube, which thereby serves as a detector, substantially as described.

I further claim forming the lock case, A, of two parts, a b, with a division plate, p, between, whereby the construction of the lock is rendered extremely simple and the invention enabled to be carried out or produced at a moderate cost.

25,429.—Murdick Lytle, of Alleghany, Pa., for an Improved Steering Apparatus for Barges in Rivers:

I claim the application of a wheel, C, to the bow of a barge, so that said wheel shall revolve at right angles to the direction of the barge, in combination with an apparatus for operating said wheel by the power of the propelling boat, substantially as and for the purposes specified.

25,430.—Jacob Maize, of Wooster, Ohio, for an Improvement in Seeding-machines:

I claim the adjustable cultivators, K, provided with the arms, K', guides, M, and the adjustable jointed harrow, Q, when arranged in relation to each other, as described, and acting conjointly with the seeding apparatus, in the manner and for the purpose set forth.

25,431.—W. A. McDonald, of Mott Haven, N. Y., for an Improved Dovetailing Machine:

I claim, first, The employment or use of spiral saw-cutters, G G'

and G' G'', attached to the rotating heads, F, connected by gearing, L, for the purpose specified.

Second, In combination with the cutters, G G' and G' G'', the adjustable platform, L.

Third, The combination of the cutters, G G' G' G'', platform, L, and gage, M, operated by the screw, c, for the purpose set forth.

[An engraving of this machine may be found on page 129 of the present volume of the SCIENTIFIC AMERICAN.]

25,432.—Edmund Miller and Benjamin Miller, of Rising Sun, Ind., for an Improvement in Cultivators:

We claim the combined arrangement of the guard, H, elevated wing, I, curved horizontally in two directions, adjusting shank, G, and bracket, E, F, operating in connection with a shovel plow, in the manner and for the purpose set forth.

25,433.—Henry Miller, of Grafton, Va., for an Improved Shingle Machine:

I claim the manner of tilting the bed, as shown, to wit, by means of the adjustable wheel, I, on shaft, J, actuated by the ratchet, K, also on said shaft, the pawl, L, on the framing, A, spring, w, attached to the carriage, E, and spring, t', attached to the framing, A, and acting on the bed, F, the whole being arranged substantially as and for the purpose set forth.

I further claim the arrangement of the bed, F, and rods, G H, attached to the framing, as shown, to admit of the vertical adjustment of the bed, for the purpose of graduating the thickness of the shingles.

[This invention relates to an improvement in that class of shingle machines in which the bolt, in order to have the shingles cut in taper form, is adjusted obliquely to the cutting plane of the saw by means of a tilting bed. The object of the invention is to simplify the mechanism employed for such purpose, and to graduate with facility the length of the tilting movement or the degree of inclination of the bed, so as to give the shingles a greater or less degree of taper as may be desired.]

25,434.—Jonathan H. Mitchell, of Germantown, Tenn., for an Improvement in Cotton-scrappers:

I claim, first, The combination and arrangement of the beam, d, chair, c, mold-board, a, and share, b, when operating substantially as set forth.

Second, The adjustable and changeable share, b, when constructed arranged and operating substantially as and for the purpose set forth.

25,435.—William Morrison, of Carlisle, Pa., for an Improvement in Corn-planters:

I claim a corn-planter, constructed substantially as shown and specified, that is to say, with the mold-boards, m m', adjustable cutters or covers, d d, hopper, B, slides, q q, and cleaners, N and e, when these several parts are constructed and arranged for joint operation in the manner and for the purposes described.

25,436.—William O'Neill, of Pine Level, Ala., for an Improvement in Plows:

I claim the lapping land-sides of the plows and the bar, A, attached to the beam as specified, in combination with the bolts, nuts and braces described, whereby they may be formed at pleasure into a double or hill-side plow, as set forth.

25,437.—Wm. O'Neill, of Pine Level, Ala., for an Improvement in Plows:

I claim the arrangement of the adjustable mold-boards, M M', attached to the share by bolts, a, and constructed as described, with braces, z and T, stock, S, and share, S', and point, P, substantially as and for the purposes specified.

25,438.—Geo. T. Parkhurst, of Baltimore, Md., for an Improvement in Lamps:

I claim the flattened air-tube, bent at right or other convenient angles, with a slit or opening at the outer angles, in combination with flat wick tubes, and the combination of the above parts with the cap or dome, made or operating substantially as described.

25,439.—Stephen B. Peet, of New York City, for an Improvement in Carriage Springs:

I claim a compound spring, composed of a combination of an elliptic leaf or leaves and a volute coil, substantially as set forth.

25,440.—John G. Perry, of Kingston, R. I., for an Improved Sausage-stuffer:

I claim combining the cylinders, c, having a spiral cavity or cavities, with the follower, D, substantially as described for the purposes set forth.

25,441.—Orris Pier, of Ludlow, Vt., for an Improvement in Horse-rakes:

I claim the arrangement and combination of the adjustable bar, I, lever, H, bar, E, rods, G, rake, F, strap, J, and seat, Y', as and for the purpose set forth and described.

[The object of this invention is to obtain a rake that may be readily raised and lowered for the purpose of having its load discharged, and also readily adjusted, so that the ends of the teeth may be at the desired height from the surface of the ground, and the rake be enabled to gather or rake all the hay without having its teeth catch into the ground, a contingency which frequently occurs in using the wire-tooth rake, greatly increasing their draught and the wear and tear of the implement.]

25,442.—Daniel R. Prindle, of Bethany, N. Y., for an Improvement in Boilers and Steamers:

I claim the so turning or forming the flange of the upper section so that it will contain water to prevent the fire from burning the packing beneath the flanges, substantially as described.

25,443.—S. G. Randall, of New Braintree, Mass., for an Improvement in Seeding-machines:

I claim the arrangement and combination of the series of plate wheels, D D, seed-boxes, A, and horizontal bar, B, substantially as shown and described, so that as the bar, B, is drawn along, the plate wheels shall assume an oblique position, as set forth.

[This invention consists in the employment or use of a novel harrowing device applied to and combined with a seed-box and seed-distributor, whereby a very simple and efficient implement is obtained for the desired purpose, and that may be used on rough ground without being obstructed in its work or liable to be broken or injured.]

25,444.—J. A. Safford, of Winchester, Mass., and John W. Chase, of North Weare, N. H., for an Improvement in Skiving Machines:

We claim, firstly, Hanging the gage roll, K, in vibrating frames, I, in combination with the spring, h, and retaining spring-catch, N, and adjustable stops, k, l, the whole arranged and operating as specified for the purposes set forth.

Second, We claim the over-lapping knife, L, in combination with the adjustable spring apron, M, arranged and operating as specified for the purpose set forth.

25,445.—Francis C. Schaffer, of Brooklyn, N. Y., for an Improvement in Carriage-tops:

I claim the arrangement and combination, with the curtains, D, of the hooks, I, guides, d, and supporters, c, as shown and described, so that the curtains, D, may be kept stretched, and be readily lowered or raised and secured overhead, within the carriage at any desired point, as set forth.

[This invention consists in arranging the side curtains with hoo s, which catch over guides attached to the top of the carriage, and extending from one side to the other, so that the curtains can be made

to slide up and down, and that the same are retained in their position, when raised, by the friction of the hooks on the guides, and more particularly by the curve which they are forced to turn as soon as they begin to rise; and the curtains are hinged to the carriage-top in such a manner that they can be raised and supported in such a position that they protect the persons in the carriage against the direct influence of the rays of the sun, without excluding the air.]

25,446.—Thaddeus S. Scoville, of Rochester, N. Y., for an Improved Spirit Level:

I claim employing a single transparent cell or cistern of spirits, or other fluids, in combination with the scale, c, and rectangular stock, A, in such a manner that the surface line of the liquid shall indicate both the horizontal and perpendicular, with the intermediate degrees, substantially in the manner and for the purposes set forth.

25,447.—Harvey Sloan, of Franklin, Ind., for an Improvement in Seeding-machines:

I claim, first, The arrangement of the shanks, I I', drag-bars, K K', levers, J J', bar, G, rest, H, and support, h, the same being combined and operating substantially as and for the purpose specified.

Second, In connection with the subject of the first claim, the arrangement of rollers, B B, seed-boxes, C and D, slides, a and d d, when the same are constructed substantially as and for the purpose specified.

25,448.—C. A. Smith, of Piermont, N. Y., for an Improvement in Railroad-car Seats:

I claim, first, The arrangement of the back and bottom of a car seat, as described, so that when the seat is adjusted to an inclined position both parts move together on the same pivot, a, on which the back moves, independent of the bottom, when the seat is reversed substantially as specified.

Second, I claim the spring catch, e, notched arc, f, bottom, A, and back, D, when the same are arranged and combined as described.

[This is an invention for inclining car seats at night, to adapt them for sleeping. The seat is so arranged that the bottom and back move together, on the same pivot, when it is desired to give the seat more or less inclination, and that the back moves independently of the bottom, but on the same pivot, when it is desired to reverse the seat. The seat is held at the desired inclination by the spring-catch and notched arc, the operation of which is so simple that it can be easily understood by any person, even though entirely unacquainted with mechanical apparatus.]

25,449.—P. M. Smith and T. T. Collier, of Lavernia, Texas, for an Improvement in Cotton-seed Planters:

We claim the arrangement and combination of the wheels, B, axle, C, crank, a, pulley, H, slide, D, agitator, E, fender-bar, S, plow-share, G, and scraper, h, substantially as and for the purpose described.

[This invention consists in arranging, over a reciprocating slide, an agitator, which serves to facilitate the discharge of the seed from the hopper through a hollow wrought-iron plow-share, said agitator being operated from a pulley on the same shaft which gives motion to the slide, so that both move simultaneously.]

25,450.—James C. R. Steirly, of Brooklyn, N. Y., for an Improved Thimble:

I claim the combination of the thimble and cutter in the manner and for the purpose set forth.

25,451.—David Stuart, of Philadelphia, Pa., for an Improvement in Cooking-stoves:

I claim combining with the hollow cross-piece, b, the distributor, a, constructed and arranged as set forth.

25,452.—J. H. Swan, of New York City, for an Improved Folding Chair:

I claim, first, The arrangement of the back, E, seat, F, and arms, G G, substantially as shown, so that the back and seat, when occupied, will be nearly counterpoised, and the arms, G, moved with the seat and back for the purpose specified.

Second, In combination with the back, E, seat, F, and arms, G G, the curved legs, A A B B, when the whole are arranged substantially as shown, so as to admit of being completely folded.

25,453.—James Taylor, of Rushville, Ill., for an Improved Churn:

I claim the peculiar construction and arrangement of perforated brakes and auxiliary reflectors, in combination with a dasher, having its blades flattened out gradually from near the shaft to their ends, substantially as and for the purposes set forth.

[This invention consists in arranging, on the side of the tub or barrel in which the dasher operates, a series of brakes, which are constructed of alternately wider and narrower ledges; and the wide brakes are cut out close to the side of the barrel, so that the cream or milk, as it is agitated by the dasher, is broke towards the sides of the barrel by the same, while the narrower brakes are so arranged that the current of milk or cream is broke from these sides, whereby the cream is not only reduced to butter in a very short time, but the churn can also be operated quite easily and with little exertion.]

25,454.—James S. Taylor, of Danbury, Conn., for an Improvement in Machinery in Forming Hat Bodies:

I claim the combination of the two perforated cones and exhaust, with one picker and feed arrangement, so arranged that the current of impelled fur is alternately shifted from the tip of one cone across on to the tip of the other in such a manner as to give the required proportions in forming a perfect hat body.

25,455.—George W. Tolhurst, of Liverpool, Ohio, for an Improved Washing-machine:

I claim the inside bottom box, B, constructed air-tight, so that when the pressure of the upper rubber is removed it will float, and expose the clothes to be handled.

25,456.—M. L. Tourtelett, of Neshonoc, Wis., for an Improvement in Seeding-machines:

I claim the combination and arrangement of the levers, G H, connected by the traverse rod, e, the cam, I, the slides, F F and L, for joint operation for the purpose set forth.

[This invention relates to an improvement in that class of seeding-machines which are designed for planting various kinds of seeds, and either in hills, drills or broadcast. The invention consists in a novel device or attachment, whereby the seed may be planted at a greater or less depth, and, at the same time, leave the earth pressed firmly on it, and the soil left with a smooth surface. The invention also consists in a peculiar arrangement of hoppers and mechanism for operating the seed-distributing devices, whereby either hopper may be used separately or all used simultaneously, as may be desired.]

25,457.—Louis S. Ullman, of Nashville, Tenn., for an Improved Hygrometer:

I claim the combination of the capsule and naturally spiral tail-like appendage of either of the plants specified, with an index and dial, or their equivalents, substantially as described, to constitute a hygrometer.

[This is a most novel invention, and we shall present our readers with an engraving and description of it in a few weeks.]

25,458.—John Van Horne, of Magnolia, Ill., for an Improvement in Machine for Weighing Grain, &c.:

I claim weighing, by means of a round ball or self-acting weigher, O, operating in a concave beam, or balance and blocks, and spiral springs, N N, working in the bottom of the beam by means of the grooves, P P, so as to weigh different weights or drafts, and board, H, combined for the purposes set forth as above described.

25,459.—Thomas J. Wallace, of Cameron, Ill., for an Improvement in Machines in Raking and Loading Hay:

I claim, first, A hay-raker and loader, all the parts of which are constructed, arranged and combined together for joint operation substantially as described.

Second, The combination of the inclined part, A, with its pivot, c, with the part, A', of the main frame and slot, d, substantially as and for the purposes set forth.

25,460.—Hamlin Whitmore and David M. Smith, of Springfield, Vt., for an Improved Carpenter's Rule:

We claim the spiral springs, f h, applied to the pindle, e, of the joint, in combination with the elastic bearings, d', of the plates, c c, provided with notches, f, and projections, g, as and for the purpose set forth.

[This invention relates to an improvement in the joints of the rules whereby the same are prevented from casually opening and closing, a result due to the wear occasioned by a very little use. The invention consists in having spiral springs fitted on the pintles of the joints, and bearing against elastic plates at the central portion of the joints, said plates being notched and provided with projections, so as to form snags or catches, to effect the desired object.]

24,461.—Charles Whitaker, of Davenport, Iowa, for an Improvement in Corn-planters:

I claim the arrangement of the seed-boxes or receptacles, F, slides, g, stationary plates, G', and movable plate, G, with the arms and weights, m, attached substantially as and for the purpose set forth.

[This invention relates to an improvement in that class of corn-planters in which the corn is distributed from the peripheries of the wheels. The invention consists in a peculiar distributing-device, arranged in connection with a seed receptacle within each wheel whereby a very simple, economical and efficient machine is obtained for the purpose intended.]

25,462.—J. S. Williams, of St. Louis, Mo., for an Improvement in Grates:

I claim the combination of the stove-grate, A, having register plates, D D, and valves, H H, which admit unheated air from the room, at all times, through the bottom of said plates, but control the flow of heated air into the room, as described, with the ordinary fireplace, C, when the latter is separated from the flue above by a simple fire-board, b, in the manner and for the purposes described.

25,463.—W. B. Williams, of Warrenton, N. C., for an Improvement in Plows:

I claim, first, The combination of screw-bolts, S, nut, n, in beam, B, standard, A, cuff, c, and slotted brace, b, to regulate the depth of plowing substantially as described.

Second, And, in combination with the above, the curved arm, D, for collecting weeds, substantially as described.

25,464.—W. B. Williams, of Warrenton, N. C., for an Improvement in Plows:

I claim the combination of standards, S, plate, P, and oblique wings, W, substantially as and for the purpose set forth, with share, C.

25,465.—Albert Broughton, of Malone, N. Y. (assignor to himself and A. Lindsay, of same place), for an Improvement in Converting Rotary into Reciprocating Rectilinear Motion:

I claim the combination of the divided journal-box, F F', containing two bearings and closed by springs, G G, and the spring, I, or toothed plate, I', with the vibrating pinion-shaft, E, the whole operating substantially as and for the purpose specified.

[This invention consists in combining two opposite toothed racks with a single interposed rotary pinion, for the purpose of converting rotary into reciprocating rectilinear motion, by so applying the shaft of the pinion, in combination with a divided journal-box, having two bearings closed by springs, and so applying means of shifting the pinion-shaft from one bearing to another of the journal-box that the pinion is made to gear with the two racks alternately, and so caused, by its revolution, to give the carriage or device to which the said racks are attached a movement back and forth.]

25,466.—J. H. Gould, of Alliance, Ohio (assignor to himself and E. A. Hartshorn, of Mount Union, Ohio), for an Improved Cover for Stove-plates:

I claim the self-erecting handle, A, in combination with weights, C, arranged essentially as and for the purposes set forth.

[This invention consists in the employment of a wire handle, in such relation to a common circular or other-shaped lid used for covering the boiler-holes in the top plates of stoves, that said handle will always keep an erect position, and, at the same time, is not liable to be bent or broken off, nor will it be in the way in using the top of the stove.]

25,467.—James A. Hamer, of Reading, Pa. (assignor to himself and Norris Maris, of Kimberton, Pa.), for an Improvement in Brick Machines:

I claim, first, The combination of the blades, V, and rods, L, with the valves, J, and spiral, K, constructed, arranged and operating, in relation to each other, substantially as and for the purposes set forth.

Second, The combination of the adjustable cover, D, with spiral, K', and trough, B, for the purpose of relieving or increasing the pressure upon the clay in the molds as set forth.

Third, The combination of the hinged smoothing-piece, Q, with the hinged vertically-reciprocating piece, P, as and for the purposes set forth.

Fourth, Providing the hinged smoothing-piece, P, with the slot, O, and tube, S, as and for the purposes set forth.

25,468.—S. P. La Due, of Rockford, Iowa (assignor to Thomas S. La Due, of same place), for an Improvement in Calendar Clocks:

I claim, first, The arrangement and combination of the wheels, C D E and G, and the ring, M, and Q, the faces of which are marked with the proper figures and letters, so that they indicate the seconds, the minutes, the hours, and the days of the week and month, substantially in the manner specified.

Second, Arranging the wheel, G, in such a manner that it serves the double purpose of actuating the bell-hammer and to indicate the hours of the day substantially in the manner described.

Third, Placing the figures and dials on the faces of the driving-wheels to indicate the seconds and minutes by a continuous motion; also, to indicate the hours by a continuous or intermittent motion substantially in the manner described.

[This invention consists in arranging the wheels in the clock with figures and letters, in such a manner that the same, by their relative position towards an opening or openings in the lower part of the case, or towards a stationary point, indicate the seconds, the minutes, the hours, the days of the week, and those of the month, without the aid of movable hands or indexes, and these wheels therefore serve, at the same time, as driving parts of the clock, and as dials and hands, those wheels being dispensed with which usually serve to operate the dials or hands; and those wheels which indicate the hours, the days of the

week, and the days of the month, are so arranged that they have an intermittent motion, keeping the respective figures or letters in view during the whole hour or during the whole of the day, the changes taking place almost instantaneously with the wheels which indicate the days of the week and month, and at shorter or longer intervals, according to the hour which the clock has to strike, with that wheel which indicates the hours, which latter, however, may be made so as to have a continuous motion. And this invention also consists in arranging the wheel which indicates the hours in such a manner that it serves the double purpose of indicating the time and actuating the bell-hammer.]

25,469.—Joseph B. Okey, of Indianapolis, Ind. (assignor to himself and Wm. H. Hendrick, of same place), for an Improvement in Straw-cutters:

I claim, first, The combination of sliding-bar, B, when constructed as set forth, with yoke, C, and vibrating bottom, D; and— Second, The combination of cams, F and G, with lever, A, when constructed and used as described, all operating substantially as and for the purposes mentioned.

25,470.—Joseph Rider, of Newark, Ohio (assignor to himself and E. Remington & Sons, of Ilion, N. Y.), for an Improvement in Breech-loading Fire-arms:

I claim the combination of the movable breech-pin, F, and the cap-tube, E, applied to a pistol substantially as described. And, in combination with a hammer of the form described, I claim the arrangement of the main-spring and trigger, relatively to each other, to the hammer, and to the stock and barrel, substantially as described.

25,471.—Joseph C. Silvey, of New Orleans, La. (assignor to Thomas J. Dobyons, of St. Helena Parish, La.), for an Improvement in Sewing-machines:

I claim, first, Operating the needle-arm, by means of a grooved eccentric, G, and a pin, h, on the needle-arm, arranged relatively to each other to operate in the manner described and illustrated. Second, The construction or arrangement of the portion of the feed-plate or table, B, through which the needle and the feeding-dog work, to form an inclined plane relatively to the direction of the movement of the feeding-dog, substantially as described and illustrated, for the purpose set forth.

Third, The combination of springs, R T and M, applied in the manner described, to effect the tightening of the stitch, and otherwise control the thread between the perforating-needle and its spool by the automatic operation explained.

[This invention consists, firstly, in a certain mode of applying an eccentric, in combination with the needle-arm, for the purpose of driving the needle, whereby the perforating needle is caused to have a slower motion in perforating the cloth, and a quicker motion on its return to take up the stitch, and to have its motion almost suspended for a considerable time while in the cloth. It consists, secondly, in the construction or arrangement of that portion of the surface of the feed-table which surrounds a feeding-dog working through the said table, and below or at the back of the cloth or material being sewed, in such manner as to form an inclined plane or occupy an inclined position relatively to the plane or direction of the movement of the roughened surface of the feeding-dog, whereby the said dog is made to operate effectually with only a simple reciprocating motion. It consists, thirdly, in a novel combination of springs attached to the needle-arm, for the purpose of controlling the thread between the eye of the perforating needle and the spool from which the thread is supplied to the said needle, and for regulating the tightness of the said thread in the stitch.]

25,472.—Seth D. Tripp, of Stoneham, Mass. (assignor to himself and Luther Hill, of same place), for an Improvement in Apparatus for Feeding Pegs:

I claim, first, Winding up the blank or strip of pegs with the ribbon, f, so that, as the ribbon is wound off by the movement of the machine, the blank will be fed up in the manner substantially as set forth.

Second, I claim hanzing the spool, I, on a vibrating arm, F, so that the spool and trough, M, may follow the motions of the swinging-gate or part of the pegging-machine, to which the trough, M, is attached.

25,473.—Andrew Turnbull, of West Merden, Conn. (assignor to himself and James D. Frary, of Meriden, Conn.), for an Improvement in Scales:

I claim, first, The combination of the beam-lever, F, with scoop platform, C, attached with the spring, K, rack, J, adjustable or fixed pinion, e, with index or indexes, N, attached to its arbor, d, and traversing over a graduated plate or plates, M, substantially as and for the purpose set forth.

Second, I claim attaching or suspending loosely the rack, J, to the beam-lever, F, by means of a pivot, f, and having a spring, g, acting on said rack in order to keep the same in gear with the pinion, e, for the purpose set forth.

Third, I claim attaching the lower end of the spring, K, to the traverse bar, h, by means of the screw, L, and nut, i, in order to regulate the tension of the spring and preserve its uniformity, substantially as and for the purpose set forth.

Fourth, I claim in combination with the beam-lever, F, spring, K, and indexes, N, connected with the beam-lever, the stop, j, on the arbor, B, for the purposes specified.

25,474.—O. H. Waters, of Baltimore, Md. (assignor to Alfred Hunter, of Washington, D. C.), for an Improved Clothes-dryer:

I claim the combination and arrangement of the adjustable grooved post, B, its radial arms, F, and box, H, with box, A, cylinder, D, and protector, K, the whole being constructed in the manner and for the purpose set forth.

25,475.—Lewis White, of Hartford, Conn., (assignor to himself and Daniel McLaughlin, of New York City) for an Improvement in Lamps:

I claim the application and arrangement of the operating gears, when placed in the manner and for the purpose herein described. I also claim the movable flaps, B B, in the manner and for the purpose substantially as described.

RE-ISSUES.

William Fulton, of Cranberry, N. J., for an Improvement in Lamps. Patented August 3, 1858:

I claim, first, The perforated plate or air-distributor, C, or its equivalent, as shown in Fig. 2, for the purpose of regulating the elastic force of the air so that it may be presented evenly to the frame (when applied to flat wick lamps), it being placed horizontal.

Second, I claim the perforations, h, in the lower part of the cap, D, as shown in Fig. 1, in combination with the perforated or air-distributing plate, C, as shown in Fig. 2.

Third, I claim the register formed of the perforations, e, in the top, A, as shown in Fig. 3, in combination with the perforated plate or air-distributor, C, as shown in Fig. 2, and the holes, h, in the lower part of the cap, D, as shown in Fig. 1, the whole being arranged substantially as and for the purpose described.

P. A. Palmer, of Troy, N. Y., for an Improvement in Heating Elevated Ovens. Patented September 24, 1850:

I claim the arrangement and combination of revertible flues in elevated ovens of cook-stoves, with partition walls, in the manner as and for the purpose described and set forth.

I also claim the arrangement and combination of the oven plate, c, in and with the inner plate and ends of the oven, as and for the purpose described and set forth.

I claim the arrangement of the damper, e, immediately between the main part of the stove, and the bottom or lower part of the elevated oven, thereby combining it with the said oven, the stove and

the double flue, c, for the purpose of controlling and regulating the heat in its passage into the flues of the said elevated oven, as described, disclaiming any damper found in any stove not having an elevated oven, as set forth.

Henry B. Goodyear, of New York City (administrator of Nelson Goodyear, deceased), for an Improvement in India-rubber Fabrics. Patented May 13, 1845.

Extended for 7 years from May 13, 1859: I claim making fabrics by thoroughly intermingling and incorporating the shearings or clippings of fibrous substances with the gum while rendered plastic by heat, substantially as and for the purpose specified.

EXTENSIONS.

C. J. Woolson, of Cleveland, Ohio, for an Improvement in Cooking-stoves. Patented Sept. 9, 1845.

I claim the forming of the bottom plate of the oven with a number of tubes or boxes, usually of sheet-iron or other substance thinner than the bottom plate, that descend from it, through the lower flue-space, the same being effected under an arrangement of their respective parts, substantially the same with that described and for the purpose set forth.

Frederick E. Sickels, of New York City, for an Improvement in the Mode of Tripping Cut-off Valves. Patented September 19, 1845.

I claim tripping the drop valve of the cut-off by a motion independent of the lifter, substantially in the manner and for the purpose described.

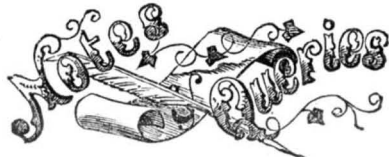
I also claim combining the wiper that drops the valve of the cut-off, whether working horizontally or vertically, with any of the moving parts of the engine, other than the lifters or their rocking shaft, by means of the sector and arm or arms, by means of which the extent of the cut-off can be regulated at pleasure during the action of the engine from the full to the least portion of the stroke, as described.

DESIGNS.

Henry Hubbard, of New York City, for a Design for the Handles of Spoons, Forks, &c.

NOTE.—A fortnight ago we took occasion to complain of the dilatory manner in which certain departments of the Patent Office were progressing. We are now happy to state that since that time the examiners have been busy at their labors, and most of the back-work has been brought up. The Commissioner has returned to his duties after an absence of about six weeks; and some members of the examining corps, who have had a shorter vacation, called upon us during the past week, on their way back to their posts, apparently invigorated by their sojourn among the hills of their New England homes.

Of the patents in the above list, THIRTY-EIGHT were secured through the Scientific American Patent Agency—a larger number, we are no doubt correct in asserting, than was ever before secured through a single agency in one week. For our superior facilities for obtaining patents, see advertisement on another page.



W. H. T., of Mass.—The facts stated by you in reference to your success in oiling journals are unprecedented so far as we know, but before we could publish them satisfactorily, we should like a sketch of the way it is done. This would interest our readers more than the bare facts themselves.

E. P. M., of Tenn.—You cannot get a good work on mill-building. Such a work is needed, but the expense of getting it up would be great, and might not pay.

S. C. N., of N. Y.—We do not wish to publish anything more at present upon the subject of "Rain at Different Elevations," unless some very novel view is presented. We will make a note of the substance of your communication in our next issue.

J. J. B., of Iowa.—We have no knowledge of the practical value of the paint you mention. Address the patentee.

W. J. McC., of Tenn.—You can procure glazed clay pipes from Miller, Youle & Co., of this city.

M. S. C., of Md.—There are clocks that keep the day of the week, month and year. Paddle-wheels have been invented where a crank was employed to keep the paddles in position. No such contrivance has proved of any practical value. The improvement you suggest in reaping-machines is not new.

R. B., of C. W.—A good undershot wheel on your fall of 3 1/2 feet (if you have plenty of water) will answer well for driving an upright or a circular saw. Address S. K. Baldwin, Laconia, N.H., regarding the turbine wheel.

S. T. N., of N. Y.—There are a number of patented machines for filing saws. See back numbers of the SCIENTIFIC AMERICAN. There are a number of patents in this country for file machines, some of which have done good work. A file machine is now successfully operating in England, as we learn from our exchanges. We are not familiar with any practice of curing spavined horses. You should apply to a "horse-doctor."

J. W. D., of Texas.—The mineral which you have sent us contains a little sulphuret of copper, some shells, and carbonate of lime. It is not worth working for the quantity of metal in it. Your subscription expires Jan. 1, 1860.

G. B. B., of R. I.—We perceive nothing patentable in your "Plumb and Level Indicator." The same plan has been often submitted for our opinion before. In the first volume of the old series of the SCIENTIFIC AMERICAN you will find an illustration of a plan not very unlike yours.

W. H. B., of Ky.—We intend to notice all such communications as are sent to us having a bearing upon our business. Sometimes, however, the inquiries are of such a nature that we cannot answer them without subjecting ourselves to a great deal of inconvenience. Your letter was one of that kind, and desirous of serving you, we handed it over to Leavitt & Co. for attention. We hope you will be satisfied with the explanation, and not attribute any intentional neglect to us.

N. P. A., of N. Y.—The cheapest way to make carbonic oxyd is to burn charcoal or anthracite with an imperfect supply of air; it cannot be made cheaply from lactic acid salts.

S. W. W., of La.—You have probably learned by this time that the strange light which you saw on the 2d of September was the remarkable aurora borealis, which was observed in Cuba as well as in this latitude, where we are more familiar with the phenomenon. The "savans" would be very happy to explain it if they were able, but it is one of those secrets of nature which have yet eluded the comprehension of man.

J. C., of Ill.—Cement for the outside of brick walls, to imitate stone, is made of clean sand, 90 parts; lithage, 5 parts; plaster-of-Paris, 5 parts; moistened with boiled linseed oil. The bricks should receive two or three coats of oil before the cement is applied.

A. Bros., of N. Y.—Messrs. Fox & Polhemus, corner of Beaver and Broad-streets, sell an article of cotton hose. The Grenoble hose, made of linen and seamless, is sold by Charles Lenzmann, No. 54 Cedar-street. The New York Belting and Packing Company, Nos. 37 and 38 Park-row, keep a complete assortment of india-rubber hose.

G. H., of Miss.—Our dealers in telescopes do not credit the statements in the advertisement referred to. They say that telescopes combining so great power with so small a size have never been seen here, and that they should have imported some of those advertised if they had not satisfied themselves that the statements were erroneous. Bookbinder's paste is made in the same manner by different persons generally in the trade. It contains alum.

A. F. A., of Conn.—Clay tobacco pipes are made by Edwin Holley, Nos. 30 Hudson-avenue and 241 John-street, Brooklyn.

R. H., of Ohio.—It would afford us pleasure to receive other contributions on coal-ols, especially in regard to the temperature and management of the retorts, the coals most suitable for the purpose and the methods of refining the products.

J. A. W., of Ga.—The best alloy for journal boxes is composed of copper, 24 lbs.; tin, 24; and antimony, 8. Melt the copper first, then add the tin, and lastly the antimony. It should be first run into ingots, then melted and cast in the form required for the boxes.

G. H., of Texas.—Ice has been made in this city, and in Washington, by mechanical power. The plan was to condense air by steam or water-power, and then allow it to expand in contact with water. The expansion absorbed large amounts of heat, making it latent, and drawing this heat from the water freezes it. The great capacity of water for heat (23 times as much as that of mercury) required so much power to freeze the water that the process was too expensive, and was abandoned. We do not believe that ice has ever been made in the summer for half a cent per pound.

Money Received

At the Scientific American Office on account of Patent Office business, for the week ending Saturday, Sept. 17, 1859:—

- J. C., of Mass., \$25; H. & F., of Pa., \$50; M. & S., of N. Y., \$25; J. M. C., of Ky., \$25; J. C. A., of Cal., \$30; D. M. C., of N. H., \$30; C. C. B., of Ohio, \$25; D. & G., of N. Y., \$30; K. & M., of Mass., \$25; P. & R., of Conn., \$25; G. C., of Maine, \$25; N. G. S., of N. Y., \$30; H. R. of Ga., \$35; W. M., of Maine, \$35; W. T. J., of Ill., \$25; L. E., of Conn., \$75; J. H. L., of Iowa, \$30; A. R. R., of Mo., \$25; W. J. H., of Ala., \$67; N. H. C., of N. Y., \$20; G. C. B., of Ill., \$15; G. W., of Pa., \$25; S. W. S., of Wis., \$25; J. E. L., of Conn., \$20; C. T. S., of Cal., \$15; J. H. G., of Cal., \$25; P. K., of Conn., \$55; J. L., of R. I., \$30; S. R. McD., of Del., \$25; R. T., of Iowa, \$30; R. C., of N. Y., \$30; S. P., of Mass., \$30; W. T. L., of Mich., \$25; E. K., of Conn., \$10; H. S., of Ohio, \$25; J. C., of N. O., \$30; C. M., of N. Y., \$32; J. P. B., of Pa., \$30; W. C., of Ill., \$25; J. S. C., of Pa., \$19; H. H., of Mass., \$55; J. E. of Cal., \$20; T. H. W., of Mass., \$310; H. C. F., of Ohio, \$30; T. R., of Conn., \$30; G. F. P., of N. H., \$32; W. S. K., of Conn., \$25; J. J. K., of Miss., \$30; L. H. F., of Pa., \$25; A. D. H., of Mich., \$30; W. E., of Maine, \$30; A. A. D., of S. C., \$20; W. B., of Ohio, \$25; W. H. K., of N. Y., \$25.

Specifications, drawings and models belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Sept. 17, 1859:—

- W. C. of Ill.; C. M. of N. Y.; G. C. B. of Ill.; C. & L. of N. C.; S. R. McD. of Del.; P. K. of N. Y.; J. C. A. of Cal.; G. W. B. of La.; L. H. F., of Pa.; K. & S. of N. Y. M. & S., of N. Y.; W. G. of N. Y.; J. W. C., of N. Y.; H. H. of Mass.; W. S. K. of Conn.; C. C. B., of Ohio; J. E. of Cal.; W. H. K. of N. Y.; W. M. of Maine; P. & R. of Conn.; G. W. of Pa.; J. S. C. of Pa.; J. M. C. of Ky.; C. T. S. of Cal.; K. & M. of Vt.; H. O. A. of La. (3 cases); H. S. of Ohio; J. C. of Mass.; W. T. L. of Mich.

FR. WAGNER, MODEL AND PATTERN MAKER, No. 216 William-street, New York.

CINCINNATI MACHINE WORKS—MANUFACTURE Steam-engines and Boilers, Mill Machinery, Parker Water-wheels, Portable Corn and Flouring Mills (with or without bolts), Muley, Sash and Circular Saw Mills, &c., &c. 13 4 W. R. DUNLOP & CO., Cincinnati, Ohio.

VALUABLE MANUFACTURING PROPERTY

FOR SALE AT CLEVELAND, OHIO.—This property consists of a brick building, metallic roof, is three stories high, 200x110 feet on the ground, with the land on which it stands. The building is divided by brick walls into five apartments, and is capable of further subdivision. Power is supplied to all parts of the building by the main and counter-shafts which are attached to an engine of about 30 horse-power, located within the building. It was originally designed for renting of room and power, and is now mostly occupied for that purpose. The location and design is better adapted for the working of metals than for most other purposes, being situated on the Ohio canal and West-street, near the Cleveland, Columbus and Cincinnati Railroad. At Cleveland the Lake Superior iron and iron ore are brought in contact with the coal fields of Ohio, thus furnishing great advantages to the manufacturer. Terms of payment liberal, part of the purchase-money only being required down. 13 3 I. L. HEWITT, Cleveland, Ohio.

TO CANDLE MANUFACTURERS.—THE

undersigned manufacture "Weeden's Patent Self-consuming Wick" for tallow candles. Specimens of candles and samples of the wick may be procured at the store of G. Shepard & Co., No. 397 Broadway, New York. Samples sent by mail by the undersigned, if desired. Candle-wicking of every description, and of the best quality, supplied to order at short notice, and all the common kinds, braided and twisted, constantly on hand. 13 3 ST. PHEN RANDAL & CO., Providence, R. I.