

CORN AND COB CUTTER—Samuel B. Shinn, of Philadelphia, Pa.: I claim the peculiar construction of the cutter-head, A, as specified with or without the combination of the knives, B, and crushers, C, arranged and operating in the manner and for the purpose set forth and specified.

WASHING MACHINE—Oloffe Shostrom, of Altona, Ill.: I claim the combination and arrangement of shafts, c; levers, D, serrated plates, F, with rods, h, false bottom, G, endless apron, 5, lever, 3, and pawl, 4, the several parts being constructed and operated substantially in the manner and for the purpose set forth.

COFFEE ROASTERS—Jonathan P. Simmons, of Baldwinville, N. Y.: I claim the combination of the revolving ring with the spherical case, constructed, arranged, and operating substantially as specified.

SPINNING FLYERS—D. F. Smith, of Manchester, N. H.: I claim the construction of the arm and stem of the compressor of one piece, and the stop of a separated piece, so applied as to confine the stem in the ears on the flyer-tube as specified.

[This invention consists in a method of applying the compressor to the flyer which brings the arm of the compressor below and directly under the tube of the flyer and thus permits the roping to be brought out from the extremity of the tube directly on the arm instead of with a short bend across the edge of the mouth of the tube as in other flyers, by which means the draft or friction of the roping on the edge is obviated, and the consequent liability of frequent breaking down of the ends of the roping. It further consists in a certain construction of the compressor and method of applying its stop and spring by which some important advantages are obtained.]

HARVESTING MACHINES—Joseph D. Smith, of Lancaster, O.: I claim, first, The arrangement of the mechanism for adjusting the cutting apparatus, consisting of the rack bars, a, hinged to the cutting apparatus shaft, e, provided with pinions, b, b, and ratchet wheel and pawl, c, d, when employed in combination with the adjustable wheel, i, in the manner and for the purposes specified.

Second, The employment of the ball journals, m, m, of the reel shaft in combination with the off-side horizontally turning timber, n, of the reel frame substantially as and for the purposes set forth.

Third, The combination of the secondary standard, q, arranged on the sickle bar, with the hinged laterally adjustable brace, r, in the manner described and for the purpose set forth.

Fourth, The combination with the upward curved edge, f, of the sickle bar, f, of the overhanging upper lip, v, and under back extension flange, w, of the sickle-guard or tooth, u, in the manner and for the purpose set forth.

Fifth, The spring-catch, z', arranged on the sickle back, y, in combination with the stop-notch, z'', formed in the pitman, z, for the purpose of fastening the sickle or cutter-back, y, to the pitman, z, in the manner set forth.

ROTARY PLANING MACHINES—Wm. H. Smith, of Newport, R. I.: I claim the combination of the rotating cutter-head, C, with the central adjustable bearing-plate, D, arranged substantially as and for the purpose set forth.

[The object of this invention is to adapt that class of planing machines in which the cutters are attached to the periphery of a rotating disk or cutter-head to various kinds of work, so that the same machine may be capable of doing fine or finished work for joinery, and also rendered capable of roughing off heavy, coarse work.]

PORTABLE HORSE POWERS—Geo. W. Swift, of Oxford, Miss.: I claim the arrangement of band-wheel, F, shafts, A and C, idlers, D and E, roller, B, and cord or chain, H, the whole constructed and operating substantially as and for the purpose set forth.

MACHINE FOR CUTTING WOODEN CURVED MOLDINGS—Isaac F. Rice of Baltimore, Md.: I claim the adjustable bed formed of the blocks, g, in connection with the flexible guide plate, C, rotary cutter head, F, and the feed and pressure rollers, D, E, or their equivalents, substantially as and for the purpose set forth.

[An adjustable bed and a flexible metal guide plate, arranged in connection with a rotary cutter, pressure and feed rollers, are employed in this invention, whereby work forming circles and parts of circles of varying diameter may be cut and beaded for architectural and other purposes very expeditiously, and in a far more perfect manner than can be done by hand.]

SIGNALS FOR FIREMEN—Hezekiah D. Treadwell, of Elmira, N. Y.: I claim the combination of the catch plates, C, D, and conical stops, c, c, or their equivalents, on the car, b, b, working through a series of holes in the catch plates, arranged substantially as set forth.

WATER-WHEELS—Wm. Walker, of Pontiac, Mich.: I do not claim the employment or use of curved buckets, or those having surfaces composed of two planes placed at right angles with each other, for a bucket of such form or its equivalent, has been previously used.

But I claim, first, The employment or use of the adjustable plates, f, attached to the inner posts of the plates, e, of the buckets G, substantially as and for the purposes set forth.

Second, Providing the buckets, G, with adjustable plates, g, arranged substantially as shown, to prevent injury to the buckets by the entrance into the scroll of hard foreign substances, as described.

[This invention relates to an improvement in horizontal center-discharge water-wheels, and consists, first, in having the front or outer parts of the buckets made movable or adjustable in such a way that in case of stones, sticks or foreign substances of any kind entering the scroll, the buckets will be allowed to yield or give, and be prevented from being broken. The invention consists, secondly, in the employment of a series of adjustable plates or stops applied to the wheel in such a manner that the issues or discharge orifices between the buckets may be enlarged or contracted as circumstances require.]

LAMP SHADES—Charles and Anna C. Wilhelm, of Philadelphia, Pa.: We claim the combination of the metallic shade, A A', with the paper pictures, C' D' E', between sheets of mica, as described.

METALLIC LATHING—Wm. E. Worthen, of New York City: I claim a corrugated pierced sheet of metal, substantially as specified, either with or without rods or tubes passed through the apertures, substantially in the manner and for the purposes specified.

HARVESTING MACHINES—W. A. Wood, of Hoosick Falls, N. Y.: I claim effecting an oblique delivery of the cut grain from the platform where it falls by a series of carrying belts of different lengths, substantially as described.

MACHINE FOR MAKING PEARL BARLEY—August Wulze, of St. Louis, Mo.: I claim the construction and arrangement of the described machinery, that is to say, the arrangement and combination of the frame or wheel, H, pinions, t and u, and wheel, l, with each other, in the manner described, and with the pulleys, x' x' and y' y' and A, as set forth.

AIR-ENGINE—Stephen Wilcox, Jr., of Westerly, R. I.: I claim, first, The within described arrangement of the changing cylinder, B, and working cylinder, D, and the valve or valves by which piston, b, is made both to change the air from the cold to the hot end of the cylinder, and to receive a fresh volume of air from the next stroke, with the advantages set forth.

Second, Automatically regulating the temperature of the interior of the heating surfaces by the employment of the parts, H and L, arranged relatively to the heating surfaces of the cylinders, A and B, and to the damper, n, or its equivalent, in the flue, O, as described.

Third, Giving the regenerator an increasing area from the cold to the hot side, substantially as and for the purpose set forth.

Fourth, Working the single valve, M, in combination with the two pistons, a and b, as described, so as to thereby accomplish the three-fold purpose of induction, education and equilibrium valve, substantially in the manner and with the advantages set forth.

AMALGAMATOR—F. P. Cavanah, of Pioneer Mills, N. C., assignor to himself and R. H. Northrop, of same place, and W. A. McCulloch and E. C. Aiken, of Albany, N. Y.: I claim the arrangement and combination of the elevated quick-silver channels, f, g, near the rim of the oscillating amalgamating pan, E, as and for the purpose shown and described.

[This machine is more particularly intended for the washing and amalgamation of gold found in quartz rock, but also applicable to the extraction, by washing and amalgamation, of gold and other metals from various foreign substances with which they may be found incorporated in nature. It consists of a circular pan containing a peculiarly constructed series of concentric channels, arranged to oscillate about a vertical axis, and furnished with a central funnel and distributing cone to cause the pulverized metalliferous matter from which the gold or other metal is to be extracted, to be fed with a suitable amount of water all round the outermost channel, from whence it has to make its way from one to another of the several channels over and among quicksilver, which is contained in certain or all of the channels, to a discharging pipe or orifice at or near the center of the vessel.]

CEMENTS FOR ROOFING—Nathan A. Dyar, of Medford, Mass., assignor to himself and Rufus Kendrick, of Cambridge, Mass.: I claim, as a new article of manufacture, the waterproof roof-covering described, the same consisting of a central layer or web of cloth, or its equivalent, covered on both sides with adhering layers of water-proofing, the outward side of one which is covered with a layer of paper fixed thereto by contact with the water-proofing while it is in a warm and plastic state, while upon and embedded in the outward side of the other layer of water-proofing, while in the state just described, is a layer of sand, or its equivalent, forming the uppermost or weather surface of the article.

MECHANISM FOR OPERATING STEAM OR AIR SIGNAL WHISTLES—Moses G. Farmer, of Salem, Mass., assignor to Wm. F. Chauning, of Boston, Mass.: I claim the combination of an electro-magnetic escapement with the mechanism described for operating a steam or air whistle, as set forth.

REED ORGANS—Theophile Auguste Rousseau, of Belleville (near Paris), France, assignor to Edouard Alexandre, of Paris, France. Patented in France Jan. 23, 1857: I claim, first, The arrangement of the wind chambers, h, and registers or stops, b, in combination with the reeds, g, g, as set forth, whereby each key, a', operates as many valves as there are stops in the instrument, but only those notes are caused to sound where the register, b, is open, as set forth, thus rendering the fingering easy whatever may be the number of stops.

Second, I claim the arrangement of the valves, e, e, and knee-pieces, f, f, in the manner and for the purposes specified.

Third, I claim the manner specified of arranging the various plans or stories of the instrument, as shown in Fig. 1, and hinging the same together, for affording access to the different parts, as set forth.

VALVES FOR STEAM-ENGINES—Wm. Shepherd, Jr., assignor to Thos. Holmes and Van Wyck Foster, of Brooklyn, Eastern District, N. Y.: I do not claim the prevention of the slamming of the valve, without reference to the means by which such result is accomplished; neither do I claim, broadly, the interposition of a steam cushion to check the motion of the valve.

But I claim the combination of the steam ports, f, f', with the cover, C, operated by the action of the valve, C, substantially as described for the purpose set forth.

RE-ISSUES.
F GAS-BURNERS—John R. O'Neil, of Kingston, N. Y.: assignee of Farnall Bailey, of Philadelphia, Pa. Patented October 19, 1858: I do not claim the employment of heaters or their equivalents for carrying heat from the flame of lamps to the oil or vaporizing fluid thereof for the purpose of generating gas therefrom, but I claim producing a light which may be increased or diminished at pleasure, by means of the adjustable heater, D, or heat receivers, l, operating in connection with a wick tube or holder, B, and the flame of the lamp, or burner substantially as specified, or within the meaning and intention thereof.

KNITTING MACHINES—Nelson P. Alken, of Troy, N. Y. Patented July 13, 1853: I claim stopping a knitting machine when the yarn accumulates in its needles by the action of the accumulated yarn, substantially as set forth.

SHUTTLES FOR WEAVING CLOTH—James Baldwin, of Nashua, N. H. Patented Jan. 31, 1840—Extended for seven years from and after January 31, 1854: I claim furnishing the shuttle with a spring and catch, so arranged that the bobbin will be received or released at one operation substantially as described.

THE MODE OF CONVERTING THE BACKS OF CAR SEATS INTO BEDS OR LOUNGES—Henry B. Meyer, of Buffalo, N. Y. Patented September 19, 1854: I claim, first, The use of the backs of car seats for forming upper horizontal beds or lounges substantially as set forth.

Second, So arranging the backs of contiguous seats that they meet and remain in the same horizontal plane, substantially as and for the purposes set forth.

Third, The use of a cushioned surface intermediate between the cushioned surfaces of two car-seats so as to form with the same horizontal bed, berth or lounge, said intermediate cushion forming an attachment to and appearing as part of the car-seat when not adjusted to aid in forming a berth, bed or lounge, substantially as set forth.

Fourth, Forming a continuous line of lower horizontal beds, berths or lounges of a series of car-seats in railroad cars, by uniting the several seats so as to fill up the entire space between the seats with adjustable cushioned attachments of the seats whatever be the character or disposition of said attachments so long as they form and appear as parts of the seats, when not adjusted to form said continuous line of lower beds, berths or lounges, substantially as and for the purposes set forth.

[With this arrangement upper and lower berths are formed of simply the car-seats which are used for sitting purposes during the day. The upper berths are made by turning up the cushioned backs of the seats, and the lower berths are formed by filling up the spaces between the seats with adjustable cushioned adjuncts of the seats, which are hinged to or fitted to rely on the car-seats, and either lifted out off the bottom of the seats or simply turned over from any other position they may occupy, and adjusted into the intermediate spaces between the seats and supported by bolts or

otherwise, and thus made to form with the cushioned bottoms of the seats, horizontal berths. This is very simple, convenient and comfortable arrangement, and it or some contrivance similar to it ought to be adopted in every night train in the country for the ease and comfort of the traveling public. A beautiful illustration of this invention will be found in the present volume of the SCIENTIFIC AMERICAN.]

RETORTS FOR DISTILLING OILS FROM COAL—John Nicholson, of Allegheny, Pa. Patented February 15, 1859: I claim, first, The use of a straight or curved or straight blade or blades placed on the agitators or arms, h, of shaft, e, for the purpose of agitating, lifting, mixing and bringing all parts of the mass within the retort in contact with the heat as described and set forth.

Second, The arrangement near the outer edge of one end of a retort, of four or more supply and discharge openings, and on the other end near the outer edge of four or more exit pipes placed on a line with and opposite to the supply and discharge openings as described.

ADDITIONAL IMPROVEMENTS.

JOURNALS OF RAILROAD CARS—William Baker, of Utica, N. Y.—Patented August 11, 1857: I claim, first, Placing a cylindrical coiled spring around the piston, immediately above the socket to be used instead of the volute spring below the piston and within the socket as described.

Second, I do not claim generally a ball valve, as this is in common use in various connections, but I claim the use of the ball valve, T, in combination with the enlarged chamber, P, and the arrangement described for communicating and sustaining the oil in contact with the journal.

Third, I claim the use of the flat spring, e, (Figs. 2 and 3) constructed and arranged as described, to be used for vibrating the piston, together with the arrangement I have described for seating the piston on the spring as set forth.

MANGLES—D. Cumming, Jr., of Mobile, Ala. Patented July 27, 1858: I claim the employment or use of the cylinder, C, having an elliptical surface upon a portion of its periphery, and having a fixed axis of rotation, the cylinders, D, having a movable axis of rotation and the eccentric cams, h, arranged upon a mangle rod, and their pressure being regulated by suitable springs, the whole being arranged to operate substantially as and for the purposes set forth.

EXTENSIONS.

MACHINE FOR GINNING COTTON AND WOOL—Stephen R. Parkhurst, of New York, N. Y. Patented May 1, 1845: I claim arranging the metallic rings composing the burring cylinder so near together that no burrs or seeds, etc., can fall in between them, the rings, e', having hooked teeth cut in the periphery as described, and so placed around the cylinder as not to have the teeth on any two adjoining rings to come opposite to each other, by which the wool or cotton is drawn in by the surface of the rings and the seeds or burrs are cleaned off.

Second, I claim the combination of the burring cylinder, e', constructed as above described, with the feeding cylinders, d, and trash cylinder, g, to separate the fibres of cotton or wool from foreign or useless substances.

PRINTING PRESSES—Richard M. Hoe, of New York, N. Y. Patented May 1, 1845: I claim the lifting of the cylinder when it is desired that it should not bear on the form as it revolves, such lifting being effected by means of apparatus connected with the lever, J, arranged and operating substantially as described.

I claim the manner made known of constructing the spring-box or apparatus used by me for checking the momentum of the bed in a cylinder press, but which may be advantageously applied in other machines for a like purpose said spring box or apparatus being furnished with a centre shaft, carrying a toothed wheel that gears into wheels or pinions on several surrounding shafts, the whole of which shafts carry spiral springs arranged and combined as made known so as to cooperate with each other in the manner described.

DESIGNS.

BURIAL CASE—John McMurthy, (assignor to George C. Murthy.) of Fayette, N. Y.

SPOON AND FORK HANDLES—Wm. H. Lewis, of Glasbury, Conn.

STOVES—Sherman S. Jewitt and Francis H. Root, of Buffalo, N. Y.

INVENTIONS EXAMINED at the Patent Office, and advice given as to the patentability of inventions, before the expense of an application is incurred. This service is carefully performed by Editors of this Journal, through their Branch Offices at Washington, for the small fee of \$5. A sketch and description of the invention only are wanted to enable them to make the examination. Address MUNN & COMPANY, No. 37 Park-row, New York.

Activity among Inventors.

As an indication of the active development of genius among our countrymen we would state that during the month of April, there were made through this office alone (exclusive of our branch-offices in Washington and abroad), one hundred and fifty-seven applications for patents in the United States, and ten in foreign countries.

Out of the number of patents issued from the United States Patent Office, during the same period (April), one hundred and twenty-four of the cases were prepared and conducted through the Scientific American Patent Agency; thus showing, by figures, we are confident, not only that more applications for patents were made through this office during the above month than all the other agencies in the country combined, but also that there never were so many patents issued to the clients of one agency in the same period as were issued to our patrons last month.

It will also be observed that a very large proportion of the cases applied for (124 out of 157) were granted; thus showing that inventors are not only exercising their genius, but securing legal title to its products, and that the majority of them apply to the best source to get their rights secured.

Useful Medical Hints.

If a person swallow any poison whatever, or has fallen into convulsions from having over-loaded the stomach, an instantaneous remedy, more efficient and applicable in a large number of cases than any half-a-dozen medicines we can now think of, is a teaspoonful of common salt and as much ground mustard, stirred rapidly in a teacup of water, warm or cold, and swallowed instantly. It is scarcely down before it begins to come up, bringing with it the remaining contents of the stomach; and lest there be any remnant of poison, however, small, let the white of an egg, or a teacupful of strong coffee, be swallowed as soon as the stomach is quiet; because these very common articles nullify a larger number of virulent poisons than any medicines in the shops. In cases of scalding or burning the body, immersing the part in cold water gives entire relief as instantaneously as lightning. Meanwhile get some common dry flour, and apply it an inch or two thick on the injured part the moment it emerges from the water, and keep on sprinkling the flour through anything like a pepper-box cover, so as to put it on evenly. Do nothing else, drink nothing but water, eat nothing, until improvement commences, except some dry bread softened in very weak tea of some kind. Cures of frightful burnings have been performed in this way, as wonderful as they are painless. We once saved the life of an infant which had been inadvertently drugged with laudanum, and which was fast sinking into the sleep which has no awaking, by giving it strong coffee, cleared with the white of an egg, a teaspoonful every five minutes until it ceased to seem drowsy.—*Medical Journal.*

The Speed of News.

The Chicago Daily Journal says: "News was received in Chicago, fifteen years ago, in forty days from Europe and two hundred and forty hours from New York; now London advices reach that city in ten days, and news from New York is received here in five minutes." Our cotemporary is a little wrong in the date relating to the period when the passages across the Atlantic were shortened by the establishment of steam navigation, but essentially the improvements which have been made during the past fifteen years, in conveying messages by lightning, and in the rapidity of travel by steamship and railroad, are truly wonderful. In looking back upon the progress made, the changes appear almost like miracles, but they have become so familiar that we esteem them but as small common things. The inventor is the true representative man of this progressive era; yet he does not generally receive due credit for his achievements.

ICE WELLS.—A correspondent of the Boston Transcript states that there is a well belonging to A. Twombly, of Brandon, Vt., which was dug, last Fall, through sand and gravel, and when at the depth of 14 feet, a seam of ice, 15 feet thick, was found. At forty feet from the surface a plentiful supply of water was obtained and the well stoned up. Ever since this well was dug, ice has formed in crusts on its sides, and a scale forms every night on the water at 35 feet from the surface.

In a letter received from one of our correspondents, he states that there are several wells of this character in the neighborhood of Brandon, but the puzzle to us respecting this phenomena is as he asserts they only freeze in summer, while they keep open and free from ice all the winter. We are aware that rapid evaporation produces a cooling effect, and that ice may be produced, in some soils, by the quick evaporation of moisture from the surface, but this does not explain why ice forms fifteen feet thick, at such a depth under the surface of the ground at Brandon, Vt. The plutonic theory of the earth, which considers its interior a mass of fire, if true as regards all the rest of the world, must be excepted for Brandon, at any rate.