

28,330.—Ephraim Russell, of Coatsville, Pa., assignor to himself and J. S. Wiley, of Sadsbury, Pa., for an Improvement in Seed Planters:

I claim the arrangement of the slides, D' D', the equivalent lever, the armed cylinder, F, screw stems, m, m', slotted plates or loops, n, n, and the double dovetail keys, G G' G'' G''', operating in the manner described and for the purpose specified.

28,331.—Edward Savage, of Cromwell, Conn., and H. S. North, of Middletown, Conn. (assignors to the Savage Revolving Fire-arms Company, of Middletown aforesaid), for an Improvement in Revolving Fire-arms:

We claim placing the coiled spring which forces back the rotating cylinder away from the muzzles of the charge chamber, and covering it with the shoulder, b, of the cylinder axis pin, so that its action cannot be clogged by the accumulation of smoke, burned powder or dust from the muzzles when fired; and also increasing the facility with which the rammer can be put in and taken out, all as shown and described.

Second, The employment, in combination with the regulating screw, G, of a thimble or bushing, E, applied to the recoil shield, to serve, at the same time, as a bearing for the rear end of the cylinder axis pin, D, and a bearing for a set screw, F, by which to secure the regulating screw, substantially as described.

Third, The set screw, F, applied in combination with the thimble or bushing, E, of the recoil shield, and with the regulating screw, G, substantially as and for the purpose described.

Fourth, The combination with the plunger, I, fitted to a guide in the head of the cylinder axis pin, D, as described, of the lever, J, fitted to the slots, i and j, of the said head, and to a slot, m, in the plunger, and connected with the said head by a fulcrum pin, k, and with the plunger by a cam-like slot, h, and pin, p, substantially as specified.

[This invention consists in certain improvements in the revolver which constitutes the subject of the patent granted to H. S. North, on June 7, 1856.]

28,332.—Wm. Shields (assignor to Joseph Lockett and Robert Leake), of Manchester, England, for an Improvement in Machines for Engraving Rollers, &c. Patented in England, Oct. 30, 1857:

I claim the combination and arrangement of the mechanism described, by which the movements of a tractor can be modified in extent and changed in direction and transmitted to etching instruments, and the roller or cylinder to be operated upon; and I particularly claim for these purposes the use of the levers or bars, e6 and b4, and the bars or carriages, e9 f and g1.

28,333.—Emil Trittinn (assignor to himself and J. A. Cummings), of Philadelphia, Pa., for an Improvement in Burners for Vapor Lamps:

I claim, first, The tube, A, with its chamber, C, and slotted top, a, in combination with the stem, D, and the attachment, B, or its equivalent; the whole being arranged substantially as and for the purpose set forth.

Second, The cap, d, with its openings, having inclined sides, y, in combination with the slotted top, a, of the burner; the whole being arranged and operating substantially as specified.

28,334.—Jedediah Weiss (assignor to himself and Chas. Brodhead), of Bethlehem, Pa., for an Improvement in Telegraphic Machines:

I claim the application of clock-work to the drawing-out and letting-back of the spiral spring, circular spring, or elastic substance, and the use of the telegraphic circuit, by combining with the clock-work, the lever, A, A', and roller, L, the movable axis to the wheel, S, the sliding wedge-shaped knob, K, and the lever, O, O, in the manner and with the effect set forth particularly in the foregoing specification and the annexed drawings.

28,335.—D. H. Williams, of Alleghany, Pa., assignor to himself and R. B. Fitts, of Philadelphia, Pa., for an Improved Apparatus for the Combustion of Smoke in Steam Boiler Furnaces:

I claim the use of steam under pressure, for the purpose of forcing air through suitably arranged, conically-shaped tubes or other openings, by means of the steam pipe apparatus, operating substantially as described into steam boiler furnaces, their hot-air chambers, or the flues or tubes of the boiler; the steam jets, H, with their openings, K, or their equivalents, being in combination whether with or without the deflecting or heat-receiving wall, E.

28,336.—T. T. Woodward, of South Reading, Mass., assignor to himself and Whiton, Browne & Wheelright, of Boston Mass., for an Improved Signal Apparatus:

I claim, first, A portable revolving signal apparatus, containing a series of pyrotechnic charges, such as blue-lights or rockets, &c., and operated so as to receive an intermittent rotary motion, and to successively ignite the several charges by any suitable arrangement of mechanical devices.

Second, The arrangement of devices for rotating the apparatus and igniting the charges at the same time; the same consisting of the spring hammer and cam-grooved cylinder, c, both actuated, as described, by the rod.

RE-ISSUES.

W. E. Kidd, of New York City, for an Improvement in Bonnet Frames. Patented April 13, 1858:

I claim making the tip of bonnet frames of two separate thicknesses of the fabric known as "cape net," by subjecting the same, while in a moist state, to heat and pressure in metallic molds of the required form to impart the required shape, and effect the union of the two thicknesses at one and the same operation, substantially as described.

I also claim making the crown of bonnet frames of two separate thicknesses of the fabric known as cape net, by subjecting the same, while in a moist state, to heat and pressure in metallic molds of the required form to impart the required shape, and effect the union of the two thicknesses at one and the same operation, substantially as described.

And I also claim making the entire bonnet frame of two separate thicknesses of the fabric known as cape net, by subjecting the same, while in a moist state, to heat and pressure in metallic molds of the required form to impart the required shape, and effect the union of the two thicknesses at one and the same operation, substantially as described.

H. F. Knoderer and L. F. Knoderer, of Chillicothe, Ohio, for a Composition for Preventing Incrustation of Steam Boilers. Patented Jan. 3, 1860:

We claim the application of a compound of alum, glue, wood-ashes and wheat-bran, prepared and applied as specified, to prevent incrustation on the interior of steam boilers and pipes, of whatever kind, pertaining thereto, as specified and substantially set forth.

Samuel La Forge, of Cleveland, Ohio, for an Improvement in Waterproof Leather Goods. Patented Feb. 28, 1860:

I claim the article of manufacture named, prepared from the un-dressed skin exposed to heat, coated with the charged rubber solution or compound, and then subjected to the vulcanizing process, as set forth.

D. M. Mefford, of Jeffersonville, Ind., for an Improvement in Corn Huskers. Patented Dec. 22, 1857:

I claim the combination of husking rollers and pressure flap, operating substantially as and for the purpose set forth.

Clark Tompkins and John Johnson, of Troy, N. Y., for an Improvement in Knitting Machines. Patented Sept. 18, 1855:

We claim the apparatus for revolving the take-up machinery, in

union with the needle cylinder, as specified, substantially in the manner and for the purpose set forth.

We also claim revolving the shaping plates, S and C, by a positive motion with, and at the same velocity as, the take-up motion, substantially as described and for the purposes specified.

ADDITIONAL IMPROVEMENTS.

Mahlon Gregg, of Philadelphia, Pa., for an Improved Machine for Cutting Tenons on Spokes. Patented Feb. 9, 1858:

I claim operating the carrier, B, and bear, r, C, upon the faceplate, A, by means of the eccentrics, f and g; the same being constructed and arranged together substantially in the manner and for the purpose specified.

I also claim adjustably securing the cutter pieces, D, D, by means of the nutted T-bolt, E, when the same are arranged and applied together in relation to each other and the carrier, B, in the manner described and set forth.

Josiah Lyman, of Lenox, Mass., for an Improved Protractor. Patented May 25, 1858:

I claim, first, The arrangement of the several verniers, limbs, scales and rule in one instrument, in the manner described, for the purposes set forth.

Second, I claim the peculiar arrangement of the sliding vernier scale plate, by which it can be applied with equal readiness and facility to either side of the rule, so as to read the given angle and its complement in connection with the given distance, or be used separately, as the case may require.

Third, I claim, as an improvement, the arrangement set forth for adjusting the several verniers of the scale plate to their corresponding scales.

DESIGNS.

M. Gibney, of New York City, for a Design for Spoon and Fork Handles.

Jas. Greer and R. I. King, of Dayton, Ohio, for a Design for a Stove.

H. S. Hubbell and T. H. Wood, of Buffalo, N. Y., for a Design for Stove Plates.

Jacob Resor, of Cincinnati, Ohio, for a Design for Stoves.

John Siddons and J. G. Hart, of Rochester, N. Y., for a Design for a Stove Plate.

Wm. W. Stevens (assignor to N. P. Richardson & Co.), of Portland, Maine, for a Design for Parlor Stoves.

NOTE.—In counting the above list of claims, we observe there were ninety-six patents issued for the week ending May 15th. Of this number, we recognize twenty-six patents who had their applications conducted through this office.

Notes & Queries.

A. F. W., of C. W.—It will require no more fuel to run a steam engine at 150 revolutions per minute than 70 during ten hours, provided the entire work is equal. It requires about the same amount of fuel to run an engine at 60 lbs. pressure as at 50 lbs., provided the expansion is properly conducted and there will be a greater amount of work done. In the first case, with the higher speed, it is understood that less steam is employed at each revolution, but that the total quantity is the same for both speeds.

G. S., of Ala.—We do not advise you to use lead pipes for conveying water for domestic purposes, as some of the metal may be taken up in solution by the water, and thus poison the life-sustaining fluid. Use either cast iron or wooden pipes. You state that your yard and garden are 90 feet above your spring, and you wish to convey the water from the latter 500 feet to the former, and ask "what proportion of the water can you get from the power of the water itself—can you get a fall of from one to 12 feet?" We do not understand your questions, because you have not stated whether your spring has any fall or not. If it has a 12 foot fall, you will be able to raise about one-twelfth of its water 90 feet through a three-inch tube, 500 feet long. If it has no fall it cannot elevate any of its water.

C. L., of C. W.—We have not seen the machine to which you refer, and cannot therefore give you the desired information respecting its qualities or operation.

W. H. B., of Conn.—We believe the British steamer "Persia" has made the quickest eastward passage, and that the time was about 9 days 2 hours. The last passage of the American steamer "Vanderbilt" to New York, made in 9 days, 12 hours and 30 minutes, is claimed as the quickest westward passage. It must be borne in mind, however, that the average time of passage eastward is much less than that westward, and we think that the "Vanderbilt's" westward passage is, at least, as remarkable as the "Persia's" eastward. The passage between Liverpool and St. Johns, Newfoundland, has been made, we believe, within six days. See, also, an article on this subject in our present issue.

W. P. H., of Conn.—We have no means of ascertaining the amount machine-made hosiery manufactured in this country. There are many machines patented in this country, and on sale, which make men's nosery (socks) with a properly shaped heel, without a seam up the leg; but two machines have always been required to make a complete sock, the work being transferred from one to the other. Such machines are made and for sale by J. B. Aiken, of this city. A company—called the McNary Knitting Machine Company—has just started, and has applied for patents on a machine which makes the sock from beginning to end, with a proper heel. James J. Wilson, of this city, is president or manager of this company. There are many machines, both European and American, which will knit a sock like a bag or one end of a sausage without stopping. Such socks are afterwards shaped on a block for sale, but when they have been washed they resume the original bag form. There never has been a machine to knit ladies' hosiery with a properly shaped leg, without a seam up the leg; and we believe that if such a machine could be invented, it would be one of the most remunerative things ever got up. The English hosiery manufacturers have long desired such a machine.

H. P., of Maine.—The velocity of water in a sluice or tunnel is in proportion to the perpendicular height of the fall, not the length of incline. The velocity of water in a sluice with a two-foot fall is 11.25 feet per second.

S. R., of N. Y.—Thirty-three thousand pounds of water falling one foot per minute exerts a force of one horse-power. Consequently, to calculate the horse-power which a water wheel would have if there were no waste, you multiply the number of pounds of water which pass through the wheel in a minute by the number of feet which the water falls in passing through and divide the product by 33,000. The power exerted by undershot breast-wheels ranges from, say 25 to about 60 percent of the whole power of the water, the remainder being lost in friction leakage, &c. On pages 116 and 200 of the present volume of the SCIENTIFIC AMERICAN, you will find full directions for bleaching wax.

G. M. H., of Maine.—There is no perfect fire-proof wash for shingles known to us, but the silicate of soda is an excellent partial one. As it will be difficult, however, for you to procure this solution, we advise you to use a wash composed of common lime, sulphate of zinc, salt and skim milk. Use a pound of salt and the same weight of the sulphate of zinc to each bushel of lime, and to every gallon of the wash add a quart of the skimmed milk. Dimpfells' blower is a very good one for your purpose; it is manufactured at the Novelty Works, this city. It is constructed so as to prevent the air getting behind the blades.

G. J. L., of N. H.—Electro-magnetism has been frequently suggested as a suitable agent for car-brakes, for the purpose of polarizing the wheels; it is not, therefore, patentable as a new application. You may, however, be able to secure a patent if you provide a suitable and improved mechanism for accomplishing this object. The machine to which you refer in the museum of this city, is not a perpetual motion. If you consider a wedge to be a lever, then its fulcrum will be the lips of the split into which it is inserted; but it is so different in its nature and application from the common lever, that it is justly held to be a separate "mechanical power," and the two should never be compared together.

J. Q., of N. Y.—It is impossible to keep copper tanks bright in which water—either cold or hot—is kept. The metal combines with a minute quantity of the oxygen in the water, and forms a thin film of the oxyd of copper on the surface; this is sometimes called "tarnish." The outside of copper kettles, exposed to a coal fire, soon gets coated with the coal dust, and there is no method known to us for keeping it bright.

W. R. McF., of Tenn.—Hot-air engines are unsuited for fire-engines, because they are too bulky in proportion to their power. Compact high-pressure steam engines are necessary for running through the streets and exerting great force in ejecting the water.

J. G. L., of N. C.—By coating your cast iron pump with hot asphalt, and then allowing it to dry thoroughly, it will not be liable to rust afterwards. The water pipes in our city are of cast iron, and yet they do not communicate a peculiar iron taste to the water. Pipes made of tin will not be affected by the water in your well, but they are too dear to use for such common purposes.

N. P., of Del.—Your method of plating with alloys of gold may be patentable, but the patent must be for the process. You will find a chapter on the reduction of alloys by the galvanic battery in "Smees' Electro-metallurgy." This author states that he had not been able to reduce a perfect reguline alloy; but he lays down the principles by which such deposits may be made.

F. R. R., of N. Y.—The dark-brown substance which you have sent us appears to be a mixture of the oxyd of iron and the oxyd of alumina, and would make a cheap paint. The other powder is apparently a mixture of "green marl sand."

MONEY RECEIVED

At the Scientific American Office on account of Patent Office business, for the week ending Saturday, May 19, 1860:—

J. Y. H., of Pa., \$10; C. C. H., of N. Y., \$32; W. L., of Mass., \$30; J. H. B., of Iowa, \$10; S. F. B., of Mass., \$25; M. & B., of Mass., \$25; S. P. G., of Wis., \$30; J. G. R., of Cal., \$30; J. H., of Pa., \$25; W. A. S., of N. Y., \$10; D. G. G., of L. I., \$25; W. A. C., of Ill., \$100; C. E. L. H., of Conn., \$25; G. W. C., of N. Y., \$100; J. K., of N. Y., \$10; S. Y., of Ala., \$30; D. & H. W., of Pa., \$30; J. J., of Pa., \$25; J. S., of Wis., \$25; C. G. E., of Wis., \$30; G. W. B., of Mich., \$25; G. G., of Wis., \$35; J. T. S., of Va., \$30; J. G., Jr., of N. Y., \$30; W. H. A., of Iowa, \$55; G. C., of Pa., \$20; H. H. A., of Iowa, \$25; D. D. A., of Mass., \$35; J. F., of N. Y., \$25; C. M. Y., of N. Y., \$30; W. S. H., of Miss., \$30; D. & O., of Ohio, \$20; G. M., of Ohio, \$25; G. K. H., of N. Y., \$30; H. H. H., of Ga., \$25; H. L., of Ind., \$30; S. J., of Ohio, \$30; McN. K. Co., of N. Y., \$300; C. A. B., of N. Y., \$30; H. A. R., of Ohio, \$40; J. C. C., of Conn., \$30; F. L. L., of Mich., \$25; B. N. H., of Ill., \$10; S. K., of Ohio, \$25; C. A. H., of Mich., \$35; J. F. W., of La., \$30; J. M., of Mass., \$15; O. F. F., of Ind., \$25; F. D. L., of N. Y., \$57; E. B., of Ind., \$20; F. & B., of Ohio, \$35; W. M., of Mass., \$30; H. N., of Pa., \$25; F. McM., of Fla., \$25; E. H., of Cal., \$20; T. C., of Ky., \$55; A. S., of N. Y., \$30; T. H., of Cal., \$25; G. W. G., of Mass., \$30; B. C. C., of Ga., \$30; C. B. M., of Wis., \$10; H. A. H., of N. Y., \$30; J. J. McD., of Ill., \$60; J. C. R., of Pa., \$30; G. S. A., of N. Y., \$250; T. D., of Conn., \$25; L. J., of N. Y., \$30; F. S., of Ill., \$60; D. F. E., of Mass., \$30; L. G. & M., of N. Y., \$30; J. H. S., of N. Y., \$10; T. S., of Ga., \$35; H. C. G., of Ill., \$25; J. K., of Ohio, \$30; W. G., of Conn., \$30; H. J. H., of Ill., \$25; C. M., of N. J., \$100; J. H., of Ill., \$25; S. A. G., of N. Y., \$25; C. W., of Va., \$30; M. K., of N. Y., \$30; G. W. W., of N. Y., \$25; J. B., of Pa., \$35; L. E. H., of Ill., \$25; T. A. G., of Ill., \$30; L. D. L., of Ill., \$30; J. J. H., of Ill., \$25; J. E. A. G., of Va., \$35; G. H. C., of Maine, \$25; S. B. L., of Pa., \$30.

Specifications, drawings and models belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, May 19, 1860:—

G. H. C., of Maine; C. E. L. H., of Conn.; H. H. H., of Ga.; G. M., of N. Y.; J. F., of N. Y.; T. D., of Ohio; W. H. L., of N. Y.; P. & B., of Ohio; S. F. B., of Mass.; D. G. G., of L. I.; W. F., of Mass.; F. S., of Ill. (2 cases); J. M., of Mass.; S. K., of Ohio; J. B., of Va.; M. & B., of Mass.; R. S., of R. I.; H. N., of Pa.; J. J., of Pa.; J. S., of Wis.; J. J. McD., of Ill. (2 cases); H. H. A., of Iowa; E. P. W., of N. Y.; J. H., of Pa.; C. C. H., of L. I.; F. L. L., of Mich.; R. A. W., of Pa.; S. A. G., of N. Y.; H. C. G., of Ill.; O. F. F., of Ind.; L. E. H., of Ill.; J. B., of Pa.; G. W. B., of Mich.; G. S., of Ga.; J. H., of Ill.; J. J. H., of N. Y.; J. B. A. G., of Va.

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