

Facts for the Ladies.

We are very happy to be able to recommend Wheeler & Wilson's Sewing Machines to all persons who may be wanting an article so useful as a Sewing Machine. After an experience of ten years, we are not only able to speak with confidence of their usefulness, but, also, of their great superiority over all other machines that we have tried in our establishment. These Sewing Machines have three advantages of great importance—rapidity of motion, adaptation to a greater variety of work and material, and little or no expense for repairs.

SISTER MARY,
Sister of Charity.

Providence Nunnery, Montreal.

You Cannot Do a Better Thing

For your Wife, on a washing day, than provide her a Doty Washer and Universal Wringer. It will keep aches from her back and arms, wrinkles from her forehead, and roughness from her hands. It will do the work of a hired woman, and save your linen from being scrubbed out and her temper from being chafed out.—(New York Weekly Tribune, March 22, 1870.)

Many of the Largest Advertisers

In the country make all their contracts with newspapers through the Advertising Agency of Geo. P. Rowell & Co., No. 40 Park Row, New York. Their facilities for the transaction of the business are not excelled by those of any similar establishment in the world.

Answers to Correspondents.

CORRESPONDENTS who expect to receive answers to their letters must, in all cases, sign their names. We have a right to know those who seek information from us; besides, as sometimes happens, we may prefer to address correspondents by mail.

SPECIAL NOTE.—This column is designed for the general interest and instruction of our readers, not for gratuitous answers to questions of a purely business or personal nature. We will publish such inquiries, however, when paid for as advertisements at \$1.00 a line, under the head of "Business and Personal." All reference to back numbers should be by volume and page.

W. J. B., of N. Y., writing to ascertain what will remove walnut stains from the hands, is answered by

R. S., of Vt., who states that slices of ripe pears rubbed on the hands will remove such stains. This may be correct; but, if so, the action must, we think, be due to the malic acid contained in the fruit. If this view be correct, green apples, which contain a much larger proportion of malic acid, ought, it would seem, to be still more efficient. There are various organic acids that will remove vegetable stains. Of these oxalic acid is one of the most powerful, but it is very poisonous, and requires to be used with much care. Citric acid or lemon juice, which contains a large proportion of citric acid, is also very good for removing many kinds of stains, and is safe to use. When the hands are stained no soap should be used to wash them previous to the use of acids for taking off the stains, as the alkali of the soap acts as a mordant to render the stains permanent. Where any of the acids named are used, the washing should be completed with pure water.

D. H., of Mass.—India-rubber can be dissolved in turpentine, animal oil, ether, or benzole, by introducing the solvent in the form of vapor, into a vessel containing the india-rubber in small pieces; the vessel being then exhausted of air, and kept at a required temperature by means of steam. Or it will dissolve in these fluids by simple immersion in them, when heated, but more slowly and imperfectly. Benzole or benzene as it is commonly called, and other hydrocarbons of a similar character, dissolve it cold. Chloroform also dissolves it, but undoubtedly the best solvent for general purposes is benzole. We doubt if you will succeed in making finger-cots by this process. There are secrets of experience essential to success which manufacturers jealously guard.

G. D. F., of S. C.—The paragraph to which you refer, as going the rounds of the press, stating that the Little system of transmitting telegraph messages enables 400 words per minute to be sent from Washington to New York, is correct in that statement. We have ourselves been lately investigating this system, and have now in our possession a message of about six hundred words transmitted at that rate, and distinctly legible. Your idea that this system could be substituted for short hand reporting is not correct, as the messages have to be first prepared by puncturing strips of paper on a machine for that purpose, a much slower process than short-hand writing, and the transmission is effected by an automatic machine that can only speak what is put into its mouth on the punctured paper slip.

C. E. K., of Mich.—Many learn to run locomotives by commencing with a small engine, and so climbing through the post of fireman finally to engineer in charge. In fact, that is the apprenticeship usually practiced we believe in England. We believe, however, that the learning of the machinist's trade in a locomotive shop is the best beginning. Certainly, all other things being equal, he who knows how to build and repair a locomotive is best qualified to run it. Besides, all men having the requisite knowledge are not qualified by courage or strength of constitution to endure the hardship of a locomotive engineer's work. Having learned the machinist's trade, you would have something to fall back upon in case of failure.

J. W., of R. I.—There is no way that we know of, and india-rubber manufacturers tell us there is no practical way of fastening india-rubber to metal, except by dovetailing it in, or some kindred process, while the rubber is yet soft and previous to the vulcanizing process. If, in this time of many discoveries, a cement has been found that will cause rubber to firmly adhere to metal, we shall be glad to receive the formula from any of our correspondents who may chance to know it.

E. J., of Ill., says that the water from a certain well is raised by means of three buckets, and that it is proposed to add another. The question arose whether the use of the extra bucket would add one third more, or one fourth, to the volume of water discharged. The parties, unable to agree, wish us to decide. We answer the extra bucket increases the discharge one third.

J. S., of S. C.—It will not injure your plain cylinder boiler to drill an inch hole in the end in the top remote from the boiler, and insert therein a pipe to convey steam to the lint room of your gin-house, provided the work is done in a workman-like manner.

C. M. B., of D. C.—A wire of fifty miles in length of iron might without doubt be made so small that it could be wound on a single reel of not very exaggerated dimensions. There would be no difficulty about flexibility. The size of the coil would of course depend upon the diameter of the wire.

W. B., of Ca., wants to know how japanning is done by steam heat, the construction of the ovens, etc. We have never seen japanning done by steam heat, still it is quite possible it is so performed. Can any of our correspondents throw some light on this subject.

J. S. V., of N. H.—There are no depths in the ocean to which a body originally heavier than sea water would not sink, although there is a theoretical limit where water would become so compressed as to be heavier than iron or even lead. This limit is, however, far lower than any depth of water supposed to exist in the ocean.

Wm. L. G., of D. C., wishes to know how to give small steel blades, which have been discolored by being ground, and which are not polished, a color which will remove or cover the rust, and also give a uniform shade of, say, blue or green.

S. K., of Ind.—We have not been able to get the definite information you seek in regard to the oil of brick.

Business and Personal.

The Charge for Insertion under this head is One Dollar a Line. If the Notice exceed Four Lines, One Dollar and a Half per Line will be charged.

The paper that meets the eye of manufacturers throughout the United States—Boston Bulletin, \$4.00 a year. Advertisements 1c. a line.

Parties in need of small Grey Iron Castings please address Enterprise Manufacturing Co., Philadelphia.

Excelsior Stump Puller & Rock Lifter. T. W. Fay, Camden, N. J.

For Sale—One half the interest in McGee's Patent Self-boring Faucet. Address T. Nugent, Morristown, N. J.

Knitting Machines.—Manufacturers will address R. Samuel, Walden, N. Y.

Ireland's Hand Fan Mover.—The Patent Right of this novel and valuable invention for sale for cash, or part cash, and a royalty. Address W. A. L., 4 Irving Place, New York.

For Sale—A very valuable Patent. Large Commission to Agents in selling my new and valuable invention. Address Peter Soule, Rochester, N. Y.

Stager's Automatic Boiler Feeder. For Rights and Machines apply to J. B. Smith, 417 Broadway, Milwaukee, Wis.

Double-barrel Breech-Loading Gun Manufacturers send circulars and Prices to F. Booker, Glass Box 196, Springfield, Ohio.

A Foreman Boiler Maker wishes a Situation to take charge of a Shop. Address "Boiler Foreman," care J. Kenworthy, 480 8th ave., N. Y.

Crampton's Imperial Laundry Soap, washes in hard or salt water, removes paint, tar, and grease spots, and containing a large percentage of vegetable oil, is as agreeable as Castile soap for washing hands. "Grocers keep it." Office 84 Front st., New York.

Dickinson's Patent Shaped Carbon Points and adjustable holder for dressing emery wheels, grindstones, etc. See Scientific American, July 24th, and Nov. 20, 1869. 64 Nassau st., New York.

Peck's patent drop press. Milo Peck & Co., New Haven, Ct.

Pattern Molding Letters to put on patterns of castings. Wholesale and retail, by H. W. Knight, Seneca Falls, N. Y.

Propeller Engine Cylinders, 28 inches square, for sale cheap, by Daniel W. Richards & Co., 92 Manrin st., New York.

Foundry Cranes, ten and fifteen tons capacity, wanted. Address Box 2,348, Postoffice.

Foundry Cranes, thirty tons capacity, for sale cheap. Address Postoffice Box 2,348.

Pictures for the Drawing Room.—Prang's "Lake George," "West Point," "Joy of Autumn," "Prairie Flowers." Just issued. Sold in all Art Stores.

Roofing Materials, House Sheathing, Roofing Felts, & Psints, full directions for applying. Mica Roofing Co., 73 Maiden Lane, New York.

Edging or Profiling Machines, having a valuable improvement in device for cutting "formers," superior shaping, die sinking, spindle and cutter grinding machines are made by the Pratt & Whitney Company, Hartford, Conn.

A New Waltham Watch, made especially for Railroad Men and Engineers, is fully described in Howard & Co.'s Price List of Waltham Watches. Every one interested should send for a copy, which will be mailed to any address free. Address Howard & Co., 785 Broadway, N. Y.

Building Felt (no tar) for inside & out. C. J. Fay, Camden, N. J. See advertisement of New Work on "Soluble Glass," published by L. & J. W. Feuchtwanger, 35 Cedar st., N. Y. Price \$3.20, mailed free.

Pumping Water without Labor or Cost, for railroads, hotels, houses, cheese factories, stock fields, drainage, and irrigation by our self-regulating wind-mill. Strong and well tested. Con. Windmill Co., No. College Place, New York.

Screw Wrenches.—The Best Monkey Wrenches are made by Collins & Co. All Hardware dealers have them. Ask for Collins Wrench.

Profitable Canvassing.—"Universal Sharpener," for Table Cutlery and Scissors. A correctly beveled edge can be obtained. See Advt.

Blind Stile Mortising and Boring Machine, for Car or House Blinds, fixed or rolling slats. Martin Buck, Agent, Lebanon, N. H.

Builders—See A. J. Bicknell's advertisement on outside page. The best selected assortment of Patent Rights in the United States for sale by E. E. Roberts & Co., 15 Wall st., New York. See advertisement headed Patentees. Sales made on Commission.

Best Boiler-tube cleaner—A. H. & M. Morse, Franklin, Mass.

"Your \$50 Foot Lathes are worth \$75." Good news for all. At your door. Catalogue Free. N. H. Baldwin, Laconia, N. H.

The Best Hand Shears and Punches for metal work, as well as the latest improved lathes, and other machinists tools, from entirely new patterns, are manufactured by L. W. Pond, Worcester, Mass. Office, 98 Liberty st., New York.

One 60-Horse Locomotive Boiler, used 5 mos., \$1,200. Machinery from two 500-ton propellers, and two Martin boilers very low. Wm. D. Andrews & Bro., 414 Water st., New York.

For solid wrought-iron beams, etc., see advertisement. Address Union Iron Mills, Pittsburgh, Pa., for lithograph, etc.

Keuffel & Esser, 116 Fulton st., N. Y., the best place to get 1st-class Drawing Materials, Swiss Instruments, and Rubber Triangles and Curves.

For tinmans' tools, presses, etc., apply to Mays & Bliss, Plymouth st., near Adams st., Brooklyn, N. Y.

Glynn's Anti-Incrustator for Steam Boiler.—The only reliable preventative. No foaming, and does not attack metals of boiler. Liberal terms to Agents. C. D. Fredricks, 587 Broadway, New York.

Cold Rolled—Shafting, piston rods, pump rods, Collins pat. double compression couplings, manufactured by Jones & Laughlins, Pittsburgh, Pa.

For mining, wrecking, pumping, drainage, and irrigating machinery, see advertisement of Andrews' Patents in another column.

It saves its Cost every sixty days—Mitchell's Combination Cooking Stove. Send for circular. R. B. Mitchell, Chicago, Ill.

Incrustations prevented by Winans' Boiler Powder (11 Wall st., New York,) 15 years in use. Beware of frauds.

To ascertain where there will be a demand for new machinery or manufacturers' supplies read Boston Commercial Bulletin's manufacturing news of the United States Terms \$4.00 a year.

Recent American and Foreign Patents.

Under this heading we shall publish weekly notes of some of the more prominent home and foreign patents.

PAINT MILL.—John W. Masury, Brooklyn, N. Y.—This invention relates to improvements in mills for grinding paint and other wet substances, and consists in providing the upper stationary stone with an annular or other hollow open or closed space for the application of cold or hot water or steam to be kept in circulation, for regulating the temperature of the stones and the substances being ground, which space is designed to be formed in the cast metal which is to be used with thin slabs of stones attached to the grinding surfaces. The invention also consists in a novel manner of suspending the upper stone on the frame for delivering the ground substance at several points around the stone, and in providing a plurality of scrapers for taking off the ground paint, so that three or more vessels may receive the ground substance at the same time, thereby enabling one person to attend to several mills, the vessels not filling so fast or needing to be changed so often; and also in a manner of suspending the upper stone for greater convenience in raising it off the bed stone.

GRAIN BINDER.—William Lottridge, Charles City, Iowa.—This invention relates to improvements in grain-binding attachments to reaping machines, and consists in a twisting attachment to the grain board of the harvester for forming a rope of straw to make the bands, the said rope being conducted over suitable guide rollers to the binding apparatus; also in an arrangement of binding jaws, twister, tucker, cutters, and the operating devices for the twister for swinging back and forth to open and close over a trough to which the gavel is delivered by a reel receiving the straw from an endless carrier, the said jaws opening to admit and disconnect the driving gear of the twister, and closing the gavel, to engage the twister with its driving gear and to bind the gavel. The invention also consists in certain improvements in the construction, arrangement, and operation of the rope carrier, tucker, discharger, cutters, and the grain holding and delivering reel.

NURSERY FOOTSTOOL.—Levi Burnell, Milwaukee, Wis.—This invention relates to improvements in footstools, and consists in a combination with a base plate preferably mounted on short legs of an upper plate hinged to it at or near one edge, or to a piece rising a little above it, and supported at the opposite edge by springs or other elastic support, considerably higher than the hinged edge, thereby constituting a graduated springing stool on which the nurse may place her foot while holding an infant, and trot it with an easy and uniform motion, not attainable when the feet rest on the floor.

HOISTING APPARATUS.—Levi Burnell, Milwaukee, Wis.—This invention relates to improvements in apparatus for hoisting building materials for building houses, and consists in a combination of a hoisting car, a track, and a counterpoise weight, so arranged that the counterpoise weight may be raised by the weight of the attendant on the unloaded car, and then raise the loaded car, whereby the gravity of the attendant may be used to raise loads as heavy, or heavier, than he could carry, in a manner much less fatiguing than the common way of carrying up the material in hods.

REED ORGAN.—George Woods, Cambridgeport, Mass.—This invention relates to improvements in reed organs, melodeons, and other like instruments, and consists in the application to the said instruments, as now constructed, of an additional wind chest, with reeds and sounding-box, for increasing and varying the sounds, the said attachment being so arranged that the valves may be worked by the keys which work the principle valves, and they may be brought into or out of action instantly by a stop provided for the purpose.

HEAD-BLOCK FOR SAW MILLS.—Franklin W. Shelley, Muncie, Ind.—This invention relates to a new apparatus for imparting motion to the head-blocks of circular and other saw mills. The invention consists chiefly in the application of a series of friction levers, which are operated by a pair of sliding bars so as to impart the necessary intermittent forward motion to the block.

ROOFING COMPOUND.—Joseph V. Douglas, Philadelphia, Pa.—This invention has for its object to utilize the iron scales, shavings, and dust which constitute the waste of shops, foundries, rolling mills, etc., and consists in combining the same with adhesive ingredients, to produce a coating or paint for roofs.

CORRUGATED AND METALLIC STREET PAVEMENT.—George Wilkes, New York city.—This invention has for its object the application of the railway principle to common use on street or roads so that all vehicles may have the smooth tracks which are now exclusively provided for railroad cars.

BALING PRESS.—William Her, Shreveport, La.—This invention relates to a novel construction of mechanism for working the follower of a baling press, and consists in a new arrangement of friction clutches for working the follower downwardly, and also in a new construction of clutch.

VELOCIPÈDE.—John Eggert, New York city.—This invention relates to improvements in the construction of the driving, steering, and braking gear of a three or four-wheeled velocipede, and to a new manner of supporting the seat on the same.

GRATE.—Francis Glick and U. Keck, Allentown, Pa.—This invention relates to a new sectional grate, which is so constructed that it can be dumped without disturbing or wearing its supports on the fireplace.

FENCE.—James Comstock, Greenfield, Ind.—This invention relates to improvements in fences, and consists in connecting the panels, which have broad posts attached to the ends, so that the longitudinal boards only extend to the centers, and are so arranged that at the meeting ends the parts of each panel will be on opposite sides to inclose the ends of both panels between them, by braces set on the ground and notched into the posts at the upper ends to support the whole above the ground, and tie bars, jointed at one end to the braces near the bottom, and extending through the board, by the edges of the posts, between the lower boards, and secured in blocks by keys in such a way that the weight of the fence serves to bind the whole together in a measure of permanence depending upon the weight of the fence.

HAIR CURLER.—J. W. Kenny and J. H. Adams, Albany, N. Y.—This invention relates to improvements in hair-curling instruments, and consists in making the cylinder hollow and of thin metal, with a small screw thread at the open end, and providing a heating iron with a handle for screwing into the said hollow curling cylinder or tube for heating the latter rapidly and uniformly, and providing a heat that will not burn the hair, by means of water contained in the tube into which the heating iron is placed. The invention also comprises the application to the tube of a thimble or ring for applying to the tube in a manner to confine the end of the lock of hair to be curled.

DEVICE FOR SPREADING CIRCULAR SAW TEETH.—W. H. Rudolph, Clarksville, Tenn.—The object of this invention is to facilitate the operation of spreading or expanding the points of circular saw teeth, so as to give a sharp cutting edge to the tooth and relieve the saw of friction, and it consists in a metallic plate provided with projecting ears for holding the tooth to be spread, and for holding the plate on the saw.

MANUFACTURE OF ICE.—J. F. Gesner, West Farms, N. Y.—This invention relates to improvements in the manufacture of ice and the refrigeration of air and all fluids, liquids, and solid substances which it may be desirable to reduce to a low temperature. By this improvement ice is produced or refrigeration obtained by the combined frigorific effect of the evaporation and heat conduction of liquid sulphurous anhydride or dioxide of sulphur (ordinarily called sulphurous acid), chemical symbol SO₂, containing one equivalent of sulphur and two equivalents of oxygen.

HORSE POWER.—E. O. and C. B. Thompson, Thomasville, Ga.—This invention relates to improvements in horse power, and consists in an improved arrangement of the supporting frame and operating machinery calculated to provide a simple and cheap apparatus for use either on the floor or for attachment, so as to be suspended in an inverted position from the beams or frame of a gin house or other building.

CAR PUSHER.—Rufus Lane, Freeport, Ill.—This invention relates to a new improvement for propelling railroad cars on switches, etc. in places where engines for that purpose are not to be obtained.

ELASTIC CLASP.—Antoine Scheydecker, Amsterdam, N. Y.—This invention has for its object to furnish an improved clasp for confining the ends of elastic sleeve bands and other elastic bands, which shall be so constructed as to hold the end of the bands securely, and at the same time in such a way as to prevent the clasp from coming in contact with the sleeve or other object about which the band is passed.

CORN PLANTER.—H. C. Beshler, Berrysburgh, Pa.—This invention has for its object to furnish an improved corn planter, which shall be so constructed and arranged as to drop the corn uniformly and at the proper time, and in such a way that the operator may see the kernels as they pass down the conductor spouts.

CHECK REIN CONNECTOR.—A. H. Rockwell, Harpersville, N. Y.—This invention has for its object to furnish a simple, convenient, and effective device for connecting the check rein with the main rein, which shall be so constructed as to enable the check rein to be secured to the main rein adjustably without sewing, forming holes in, or otherwise weakening the said main rein.

CAR COUPLING.—G. W. Wheat, Philipsburg, Pa.—This invention has for its object to furnish an improved car coupling which shall be simple in construction, effective in operation, will couple the cars automatically when they are run together, and may be easily and conveniently uncoupled.

ELASTIC CABLE APPARATUS.—J. E. Jones, Wiretown, N. J.—The object of this invention is to provide means for giving elasticity to chain cables on board of ships and steamboats, designed for relieving the cable in breaking the anchor from the ground, and in the surging of the vessel.

GUANO DISTRIBUTOR.—William E. Martin, Oconee, Ga.—This invention has for its object to furnish a simple, convenient, and effective machine for distributing guano, and other fine fertilizers, which shall be so constructed and arranged that it may be easily operated by hand.

ADJUSTABLE TIME TABLE.—Loyst J. Smith, New York city.—This invention relates to a new time-table for railroads, steamboats, and other purposes, and consists principally in the employment of a series of reversible and removable blocks upon which the requisite figures or characters are written, the blocks being retained by means of removable slides.

HARROW.—Andrew Lewis, Hastings, Minn.—This invention has for its object to furnish an improved harrow, which shall be flexible, so as to adapt itself to any unevenness of ground, and which may be folded together to enable it to make a turn on short corners.

PROJECTILES.—James G. Hope, Topeka, Kan.—This invention has for its object to furnish an improvement in balls and other projectiles, by means of which the ball or other projectile may be fired in curved lines with the same accuracy as in straight lines.

BOAT HULLS.—L. P. Rider, Pittsburgh, Pa.—This invention relates to a new and important improvement in mode of constructing boats or marine vessels, and consists in the application of certain construction lines for forming the bottom of the hull, by means of which the water is made to exert a lifting force on the boat, and is thrown beneath instead of to the opposite sides of the boat.

HAND GUANO-DISTRIBUTER.—Edwin R. Stedman, Sparta, Ga.—This invention relates to improvements in apparatus for sowing guano, plaster, and other like substances in the rows or drills in which the seed is planted. It consists in a small tin or other sheet metal cup, with a short socketed or other suitable handle for the reception of a longer wooden one, and having a hole at the apex of the conical bottom, over which works a slide for regulating the discharges, said slide being held by a pin, or it may be any other fastening, engaging it at certain prearranged points by which it holds the slide at certain graduated positions for discharging the required quantities.

SNAP HOOKS.—David J. Blasir, Western, N. Y.—This invention relates to improvements in the construction of snap hooks, and mode of attaching the reins thereto, and consists in making the shank of the hook, which is broad and flat, and broader at the end than at the junction with the hooks, and providing a clasp corresponding to it for slipping on in the direction of the strain on the rein, which clasp confines the end of the rein against the side of the shank, upon rivets projecting from it, and also confines the snap springs in a way to admit of readily removing it and applying another when broken or rendered useless from any cause.

SAW SET.—Wm. A. Smith, Dresserville, N. Y.—This invention relates to an improved saw set, which is adapted for setting the teeth of crosscut saws, by driving a tool, resembling in some respects the common upsetting tool used, for spreading the teeth of saws cutting with the grain of the wood, against the points of the teeth.

STUMP PULLER.—J. M. Ferguson, Summit, Miss.—This invention relates to improvements in machines for pulling stumps, and consists in an arrangement on the top of a portable frame of a spherical nut, with a pulling screw rod working in it, the said nut being mounted in a rotating sweep to be turned for raising the screw rod, and to have a universal motion in its seat in the sweep, so that the rod may shift according to the direction of the strain on it, and the sweep being mounted on friction balls for being supported and for revolving readily. The invention also comprises an arrangement of the brace rods for the base of the frame, calculated to facilitate the adjustment of the frame around the stumps.

MACHINE FOR FINISHING WHEELS.—Jas. L. Hathaway, Norfolk Va.—This invention relates to improvements in machinery for dressing and finishing small gear and other wheels for watches and the like, and consists in a rotary cutter of peculiar construction, and a wheel support, arranged for turning the faces of the wheels, also for dressing out and finishing the teeth.

OPERATING SAFETY LATCHES.—J. Ward Fifield, Franklin, N. H.—This invention relates to a new and useful improvement in operating safety latches, whereby the latch may be moved for locking or unlocking by means of a key.

GAS MACHINE.—John L. Bartlett, Stockton, Cal.—This invention relates to a new and useful improvement in machines for generating illuminating gas by carbureting atmospheric air.

CAR COUPLING.—Loyst J. Smith, New York city.—This invention relates to a new car coupling, which is made entirely self-acting, so that it will connect two cars without the aid of an attendant.

MEDICAL COMPOUND.—H. W. Cloud, Evansville, Ind.—This invention relates to a new and useful improvement in a compound to be used as a medicine for the cure of disease, and as a tonic.

SWING LOCK FOR TRUNKS.—James Terry, Jr., Terryville, Conn.—This invention relates to a new construction of lock fastening for trunks, etc., and more particularly to a novel form of joint for a swinging lock.

COMPOSITION ROOFING.—George Shove, Yarmouth Port, Mass.—This invention relates to a new composition for roofing, or, rather, to a novel combination of materials for constructing a covering for roofs.

POTATO DIGGER.—G. M. Marks, Half Moon, Pa.—This invention relates to new and useful improvements in a machine for digging potatoes, whereby that tedious and laborious operation is performed by horse-power, and in the most expeditious manner.

TELESCOPIC PEN AND PENCIL CASES.—Charles H. Downes, Jersey city, N. J.—This invention relates to improvements in telescopic pen and pencil cases, of that class wherein the pen or pencil holders are moved out and in the sheaths, or outer cases, by means of spirally slotted tubes, and it consists in a novel arrangement of the revolving tube and its adjuncts, whereby the spindles or pencil holders may be made of greater capacity with the cases of ordinary or a given capacity.

HOISTING GRAPPLE.—John A. Burgess, Plymouth, Mass.—The object of this invention is to facilitate the operation of hoisting barrels containing fish, or other material or substance, having but one head, designed more especially for use on fishing vessels, for hoisting and lowering fish (which are usually packed in open barrels), into the holds of the vessels.

WAGON BEDS.—W. H. Porter, Brazil, Ind.—This invention relates to improvements in wagon beds, platforms, or boxes, and consists in certain improvements in the construction and arrangements thereof, and of the connections of the brake, actuating levers, calculated to provide the most substantial and durable boxes or beds and brake apparatus that may be.

SAW FILING AND SETTING MACHINE.—Hiram D. Chance and Daniel Rishel, Llewellyn, Pa.—This invention relates to improvements in saw-filing and setting machines, and consists in an application to a pair of clamping jaws such as are used for clamping the saw and holding it to the bench, of a novel arrangement of file-holding and adjusting apparatus; also, of a setting lever.

FURNACE GRATE.—Abner B. Weeks, Rockland, Me.—This invention relates to improvements in grates of furnaces of steam-generating or other apparatus, which burn large quantities of fuel, and consists in a simple and convenient arrangement of the same in sections for dumping while the fires are burning, to discharge the refuse matter.

WATER METER.—John W. Groat, New York city.—This invention relates to improvements in the construction of that class of water meters in which the water is made to pass over a screw or spiral blade incased in a tube, the blade or screw being turned by the water, and the shaft thereof imparting motion to the recording apparatus. The invention consists in the construction of the case and the blade, and in the relative arrangement of the one with the other also in the construction of the tube inclosing the spiral blade.

WATER CLOSET.—S. R. Mann, East Cowes, England.—This invention relates to an improvement in water closets, and consists in an arrangement of parts connecting to the bottom or lower part of the pan or basin a siphon pipe, the long leg of which connects with the soil pipe, or with a trap which leads to the drain or sewer. The action of the closet is as follows: Before the handle is pulled the basin contains its normal quantity of water, say one third of a gallon, which, while serving for the proper reception of foul matters, at the same time seals the communication between the basin and the siphon pipe, which leads to the drain. When the handle is pulled, a quantity of water, say half a gallon, is quickly discharged into the basin, and the impulse and effect thus produced cause the water to flow up the short leg of the siphon and over its top bend, falling down its longer leg, and driving forward the air, or a portion of the air, contained therein, and in passing through or out of the bottom of the longer leg the water is checked in its flow, and the siphon is brought into or continued in action, drawing the contents of the basin forward so as to pass on into the soil pipe trap or drain, without allowing foul air to escape backwards into the basin or apartment.

BREECH-LOADER.—F. Von Martini, Lauenfeld, Switzerland.—This invention dispenses with the spiral spring at present employed for actuating the discharging mechanism in the Martini rifle, and the separate functions of these and other springs heretofore usually employed in fire-arms of the kind above referred to are fulfilled by a single flat bent spring. This flat, bent spring is placed in the lock frame behind a direct-acting or other hammer, the upper part or band of the spring partly supports the rear part of the falling breech block, a recess in the block resting on the bend of the spring. The lower parts of the spring are used for actuating the trigger or hammer to discharge the arm, and also as a trigger or sear spring.

The Newark Daily Journal says: "We have a great idea of New Jersey as the (or, at least, a) nursery of inventors, and though a certain New England State puts in a claim, we believe (and probably a just one), to be considered as the great mother of inventors in this hemisphere, we nevertheless cannot get rid of the notion that among the Jersey Blues what may be called the genuine spirit of invention prevails to a very uncommon degree. There is scarcely a village, indeed, of any account, so far as the mechanic arts are concerned, in this comparatively small but independent State, where two or three of its denizens are not to be met with whose ingenious experiments justly entitle them to the legitimate distinction of being (in however small a measure) the benefactors of their species; nay, whose powers of discovery, could the latter be effectually brought into practice, may have the effect of revolutionizing to advantage many a branch of mechanical business at present sinking into desuetude for the lack of such regeneration. Well, what is it, it may be asked, that could, under the circumstances, be done to bring about so great a desideratum? We answer that every well-wisher to the struggling inventor—every one with the means and the will—should take part in bringing such inventor, if he cannot do it himself, in immediate contact with those that can help him, and that effectually. And who are they? We answer, none other than that long-established, universally-known, deeply-experienced, and, by all odds, the most thoroughly skillful firm at present to be met with in this country, as procurers of patents—we mean, as a matter of course, Messrs. Munn & Co., of the Scientific American, 37 Park Row, New York city, who, if anybody can, can most effectually benefit any inventor deserving the name, and whose object it may be to secure a patent for his invention."

Official List of Patents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING Oct. 4, 1870.

Reported Officially for the Scientific American.

Table with 2 columns: Description of patent fees and their amounts. Includes 'On each caveat', 'On filing each application for a Patent (seventeen years)', 'On issuing each original Patent', etc.

For copy of Claim of any Patent issued within 30 years... \$1. A sketch from the model or drawing, relating to such portion of a machine as the claim covers, from... \$1. The full Specification of any patent issued since Nov. 20, 1866, at which time the Patent Office commenced drawing them... \$1-25.

- 107,849.—COOKING RANGE.—James Albee, Chelsea, assignor to Moses Pond & Co., Boston, Mass.
107,850.—FEED-WATER HEATER.—Harrison Anderson, Peoria, Ill.
107,851.—PAPER-FEEDING APPARATUS.—John T. Ashley, Brooklyn, E.D., N. Y.
107,852.—DIAPHRAGM STOPCOCK.—W. E. Banta, Springfield, Ohio.
107,853.—GAS CARBURETER.—John L. Bartlett, Stockton, assignor for one-half his right to William Biven, San Joaquin county, Cal.
107,854.—PROCESS FOR SEASONING LUMBER.—H. H. Beach, Rome, N. Y.
107,855.—HANDLE FOR MILK CAN.—Alvin C. Beckwith and G. H. Graham, Oriskany, N. Y.
107,856.—GRAIN SEPARATOR.—Frederick A. Begole, Jackson, Mich.
107,857.—CORN PLANTER.—Henry C. Beshler, Berrysburgh, Pa.
107,858.—ROLL FOR CRUSHING AND PULVERIZING MACHINE.—S. Blake, Pittsburgh, Pa.
107,859.—SNAP HOOK.—D. J. Blasir, Western, N. Y.

- 107,860.—GRAIN AND SEED CLEANER.—Newton M. Bowen, Knightstown, Ind.
107,861.—CIRCULAR SAW MILL.—Wm. Bowman, Etna Green, Ind.
107,862.—COMBINED PLOW AND HARROW.—J. F. Braucher, Lincoln, Ill.
107,863.—SLIDE VALVE.—George Bailey Brayton, Boston, Mass.
107,864.—MANUFACTURE OF BOOTS AND SHOES.—William N. Brookhouse, West Danvers, Mass.
107,865.—REED-SETTING MACHINE.—Joseph Browning, Philadelphia, Pa.
107,866.—MANUFACTURE OF SALT.—J. R. Buchanan, Louisville, Ky.
107,867.—CASTING VALVE CHAMBER AND SEAT.—John K. Burke, Rochester, N. Y.
107,868.—HOISTING APPARATUS.—Levi Burnell, Milwaukee, Wis.
107,869.—NURSERY FOOTSTOOL.—Levi Burnell, Milwaukee, Wis.
107,870.—HOSE BRIDGE.—Walter E. Cameron, Taunton, Mass.
107,871.—WRENCH.—Daniel Campbell and William Saul, Elizabeth, N. J.
107,872.—SAW-FILING AND SETTING MACHINE.—Hiram D. Chance and Daniel Rishel, Llewellyn, Pa.
107,873.—VISE.—Julius Chavanne, Porrentray, Switzerland.
107,874.—STOVE LEG.—S. E. Chubbuck (assignor to himself, Isaac Y. Chubbuck, and Stillman E. Chubbuck, Jr., copartners, Boston, Mass.
107,875.—MACHINE FOR DRILLING CARRIAGE SHACKLES.—J. B. Clark, Plantsville, Conn.
107,876.—RANGE FOR HEATING AND COOKING.—J. S. Clark, Philadelphia, Pa.
107,877.—MEDICAL COMPOUND.—H. W. Cloud, Evansville, Ind.
107,878.—MANUFACTURE OF FERTILIZERS.—John Commins, Charleston, S. C.
107,879.—FENCE.—James Comstock (assignor to himself and John W. Comstock), Greenfield, Ind.
107,880.—WATER COOLER AND REFRIGERATOR.—Levi R. Comstock, Keokuk, Iowa.
107,881.—PARLOR BEDSTEAD.—Mark Crosby, Boston, Mass.
107,882.—ROULETTE.—A. H. Crozier, Oswego, N. Y., and M. Taylor, Hartford, Conn.
107,883.—PORTABLE FENCE.—Wells Crumb, Coloma, Mich.
107,884.—STREET LAMP.—Gustavus Cuppers, New York city. Antedated September 21, 1870.
107,885.—BARREL HEAD.—Reuben De Bare, Philadelphia Pa.
107,886.—SAW MILL.—J. A. Dorr, Williamsport, Pa.
107,887.—MACHINE FOR FELTING AND HARDENING HAT BODIES.—John T. Earle, Danbury, Conn.
107,888.—VELOCIPEDE.—John Eggert, New York city.
107,889.—HEMMER FOR SEWING MACHINES.—John V. D. Ehridge, Detroit, Mich.
107,890.—WEIGHING ATTACHMENT FOR CARDING MACHINE FEEDER.—P. C. Evans, Brimscombe, England, and H. J. H. King, Glasgow, Scotland.
107,891.—STEAM PULLER.—James M. Ferguson, Summit, Miss.
107,892.—LUMBER DRYER.—Robert E. Ferguson, Chicago, Ill.
107,893.—CLOTHES WRINGER.—Robert E. Ferguson, Chicago, Ill.
107,894.—KNIFE-GROUNDING MACHINE.—E. S. M. Fernald, Saco, Me.
107,895.—SAFETY LATCH.—J. W. Fifield, Franklin, N. H.
107,896.—MACHINE FOR POLISHING THE EYES OF SEWING MACHINE NEEDLES.—Thaddeus Fowler, Tottenville, N. Y., assignor to "Excelsior Needle Co.," Wolcottville, Conn.
107,897.—MOP HEAD.—O. S. Garretson and J. G. Garretson, Buffalo, N. Y.
107,898.—MANUFACTURE OF ICE.—J. F. Gesner, West Farms, N. Y.
107,899.—GRATE.—Francis Glick and Uriah Keck, Allentown, Pa.
107,900.—WATER METER.—John Warner Groat, New York city.
107,901.—MACHINE FOR MAKING CLEVIS.—John S. Hall, Pittsburgh, Pa.
107,902.—ADJUSTABLE WINDOW SHADE.—E. W. Hastings, Boston, Mass.
107,903.—MACHINE FOR FINISHING WHEELS FOR WATCHES.—J. L. Hathaway, Norfolk, Va.
107,904.—PRESERVING WOOD.—Joshua R. Hayes, Washington, D. C.
107,905.—HORSE-COLLAR TOP.—Isaac Hicks (assignor to himself and J. O. Kendall), Hartford, Wis.
107,906.—STUMP EXTRACTOR.—Johnson Higgins, Friendship, N. Y.
107,907.—NECKTIE.—John G. Hitchcock, New York city.
107,908.—CORN PLANTER.—Hezekiah R. Holland, Wilmington, Va.
107,909.—PROJECTILE.—J. G. Hope, Topeka, Kansas.
107,910.—CEMENT FOR PAVING AND BUILDING.—J. E. Hover, Philadelphia, Pa.
107,911.—MACHINE FOR TENONING SPOKES.—John W. Huffman, Fremont, Ind.
107,912.—LIFE BOAT.—Robert Humble, Milwaukee, Wis.
107,913.—MACHINE FOR MAKING FANSTICK.—Edmund S. Hunt, Weymouth, Mass.
107,914.—WAGON LOCK.—S. S. Hurlbut, Cardova, Ill.
107,915.—GRAIN DRILL.—Joseph Ingels, Milton, Ind.
107,916.—MANSRING BARREL OF WATCH.—H. B. James, Trenton, N. J.
107,917.—SURGE RELIEVER.—J. E. Jones, Wiretown, N. J.
107,918.—MACHINE FOR TURNING OR PLANING THE INSIDE OF BELL OR OTHER CASTING.—Octavious Jones, Troy, N. Y.
107,919.—CORN SHELLER.—Elbert Jordan, Pickens County, Ala.
107,920.—HAIR CURLER.—J. W. Kenny and J. H. Adams, Albany, N. Y.
107,921.—TREADLE FOR SEWING AND OTHER MACHINERY.—G. B. Kirkham, New York city.
107,922.—COTTON OPENER.—Richard Kitson, Lowell, Mass.
107,923.—BARK MILL.—Charles Korn, Wurtsborough, N. Y.
107,924.—ROCKING OR TILTING CHAIR.—James Lamb, Hubbardston, Mass.
107,925.—MOLD-BOARD FOR PLOW.—John Lane (assignor to Haggood & Co.), Chicago, Ill.
107,926.—CAR PUSHER.—Rufus Lane (assignor of one half his right to W. G. Moore), Freeport, Ill.
107,927.—CIGAR MACHINE.—Johan Lauritzen, Newark, N. J.
107,928.—HOT AIR ENGINE.—C. P. Leavitt, New York city.
107,929.—HAMMER STRAP.—W. J. Lewis, Pittsburg, Pa.
107,930.—RACK FOR WAGON BRAKE.—W. J. Lewis, Pittsburg, Pa.
107,931.—BLANK FOR HAMMER-STRAP FOR WAGONS.—W. J. Lewis, Pittsburg, Pa.
107,932.—MEAT AND VEGETABLE SLICER.—P. H. Lindsey, Lockport, N. Y.
107,933.—GRAIN BINDER.—William Lottridge, Charles City, Iowa.
107,934.—WATER INDICATOR AND ALARM.—Mirabeau, New Albany, Ill.
107,935.—FLOUR BOLT.—John Mallin, Chicago, Ill.
107,936.—WATER CUT-OFF FOR CISTERNS.—J. R. Manny, Chicago, Ill.
107,937.—GUANO DISTRIBUTER.—W. E. Martin (assignor to James D. Barber), Oconee, Ga.
107,938.—SULKY PLOW.—H. W. Mason, Hagarstown, Md.
107,939.—PAINT MILL.—J. W. Masury, Brooklyn, N. Y.
107,940.—IRONING TABLE.—Henry McChesney (assignor to himself and J. W. Clark), Buffalo, N. Y.
107,941.—STAIR ROD.—W. T. Mersereau, Orange, N. J.
107,942.—MANUFACTURE OF PURIFIED CAST IRON FROM THE GEE.—J. W. Middleton, Philadelphia, Pa. Antedated September 24, 1870.
107,943.—CUTTER HEAD FOR PLANER.—John More, New York city.
107,944.—FEATHER RENOVATOR.—M. K. Morris Council Bluffs, Iowa.