

Applications for Extensions.

The following is a list of pending applications for extensions filed prior to Dec. 1st. The date of the patent, and day of hearing of the application at the Patent Office, are annexed in each case:

Rebecca A. Marcher, executrix of R. I. Marcher, deceased; dated May 22, 1855; Tool for Grooving Mouldings. Hearing, Dec. 21, 1868.
John C. Schooley; March 14, 1855; Process of Curing Meats. Dec. 28, 1868.
Birdsill Holly; Feb. 6, 1855; Elliptical Rotary Pumps. Jan. 11, 1869.
Warren Holden; May 1, 1855; Boot and Shoe Stretchers. April 5, 1869.
Geo. W. Hubbard and Wm. E. Conant; Jan. 9, 1855; reissued Sept. 18, 1866; Operating Slide Valves in Direct Action Engines. Dec. 21, 1868.
Jarvis Case; Jan. 16, 1855; reissued Nov. 16, 1858; again reissued April 17, 1866; Seed Planters. Dec. 21, 1868.
Arnton Smith; Jan. 16, 1855; Plow. Dec. 21, 1868.
Ambrose Foster, for himself and the representatives of J. A. Messenger, deceased; Jan. 16, 1855; Building Block. Dec. 21, 1868.
Newell A. Prince; Jan. 23, 1855; Fountain Pen. Dec. 28, 1868.
Russell Jennings; Jan. 30, 1855; reissued Oct. 3, 1865; again reissued Jan. 16, 1866; Auger. Jan. 11, 1869.
Jotham S. Conant; Jan. 16, 1855; Sewing Machine. Dec. 28, 1868.

MANUFACTURING, MINING, AND RAILROAD ITEMS.

An excursion over the first twenty miles of the Lake Superior and Mississippi Railroad took place on the 21st of November, and an inspection by the St. Paul city common council. The inspection was made with the view of obtaining an appropriation of \$150,000 from the city. The completion of the road is looked for in 1870.

The northern extension of the North Missouri Railroad now extends seven miles beyond the Iowa State line and is rapidly progressing.

A proposition to build a wooden railway along the Lake Superior range from Portage Lake to the Cliff mine has met with great favor. Several thousand dollars of stock were subscribed in a single day. The full amount required is \$200,000.

A large furnace has just been erected in the newly developed iron regions of Roane county, four miles from Kimbrough's Landing, on the Tennessee river. From 150 to 200 men are employed.

The proposed hydrographic survey of Vermont, of which we took notice some time since, has been decided upon and the legislature of that State taken the necessary action.

The receipts of cotton at Shreveport, Louisiana, for the month of October reached 6,637 bales, against 500 bales for the corresponding month last year. The receipts since the 1st of September amounted to 12,962 against 1,210 for the same period of time last year.

We understand that the managers of the New York & New Haven, New Haven, Hartford & Springfield, and the Boston and Albany Railroads, have decided to run daily, after the opening of spring, a fast train between New York and Boston, making only four stoppages, viz., at New Haven, Hartford, Springfield, and Worcester. Time six hours and distance about 230 miles, an average of nearly 40 miles per hour including the four stoppages.

NEW PUBLICATIONS.

MAGAZINES FOR JANUARY.

The *ELECTRIC* is embellished with "Tasso reciting his Poem at the Court of Ferrara," and contains "The Phantoms of St. Mark's," "The Hindu View of the late Eclipse," "Madam de Lafayette," "The Sun's Distance," and other good articles. The *ATLANTIC MONTHLY* is brimfull of good things. The *GALAXY* ought to be read by everybody. The *RADICAL* has several fine articles. *LIPPINCOTT'S MAGAZINE* has a choice variety. Baltimore comes into the field with the *NEW ELECTRIC MAGAZINE*, the selections for which exhibit great care; Turnbull & Murdock, publishers. *GOLDEN HOURS*, a monthly magazine for boys and girls, Hitchcock & Malden, Cincinnati; a capital serial, well illustrated.

THE CHEMICAL NEWS.

We are informed that the American publishers of this periodical propose to add to the English edition a Supplement, containing notices of the current progress of chemistry and the physical sciences in America. The new feature is inaugurated in the December issue, and will be under the editorial charge of Professor Charles A. Seely. This addition will greatly increase the value of this excellent periodical for American readers.

SLOAN'S ARCHITECTURAL REVIEW AND BUILDERS' JOURNAL.

We are in receipt of this magazine for October, November, and December. These numbers are beautifully illustrated with original designs of churches, dwellings, public buildings, and drawings of carpenters and joiners' work, with details and specifications. We most cordially commend this first class publication to all directly or indirectly connected with building, whether architects, contractors, or workmen. To lovers of art, it will prove a magazine of great interest and value, and is worth double its subscription price, \$6, to the general reader. Published by Claxton, Remsen & Haffelfinger, 819 and 821 Market street, Philadelphia.

W. J. TAYLOR, of Berlin, N. Y., has a Wheeler & Wilson Sewing Machine (No. 289) that has done nearly \$5,000 worth of stitching during the past sixteen years, and is now in perfect working order.

Inventions Patented in England by Americans.

[Compiled from the "Journal of the Commissioners of Patents."]

PROVISIONAL PROTECTION FOR SIX MONTHS.

3,393.—COOLING AND BARRING SOAP.—Silas Divine, New York city. Nov. 7, 1868.
3,433.—BREECH-LOADING FIRE-ARMS, AND CARTRIDGES FOR BREECH-LOADING AND OTHER FIRE-ARMS.—Gustav Bloem, Dusseldorf, Prussia, and Ernst Benckel, New York city. Nov. 13, 1868.
3,465.—PROPELLING VESSELS.—A. C. Loud, San Francisco, Cal. Nov. 14, 1868.
3,472.—RAILWAY WHEEL.—Geo. G. Lobell, Wilmington, Del. Nov. 14, 1868.

Recent American and Foreign Patents.

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

SLED BRAKE.—James Willis, Milfin, Wis.—The object of this invention is to provide a simple and efficient brake for sleds, and consists in an arrangement of levers and connecting rods to operate an oscillating shaft having lugs to take into the ground.

AXLES OF VEHICLES.—Edward Finn, Berlin, Wis.—The object of this invention is to provide the means of easily and quickly removing or putting on the nuts of axles, and at the same time enabling the same to be firmly held in place.

MILLSTONE DRESS.—Benjamin C. Stephens, Houston, Mo.—This invention relates to a new and improved millstone dress, whereby grain may be ground in a uniform and perfect manner.

CAR BRAKE.—D. J. Parme, San Francisco, Cal.—This invention consists of an improved arrangement of mechanism for instantly throwing a pair of friction wheels, into gear, to the shaft of one of the brake chain is attached, the other being arranged on the car axle.

PROPAGATING BOXES.—Albert D. Manchester, Westport, Mass.—This invention relates to improvements in boxes or crates for propagating purposes, the object of which is to provide boxes of cheap construction that will facilitate the same and afford a ready means for removing them from the boxes without injuring the roots.

HARROW.—B. T. Martin, Charlotte, Mich.—The nature of my invention relates to improvements in harrows, whereby it is designed to provide an arrangement which will admit of a better adaptation of the same to uneven ground, and whereby, also, it may be adjusted to a condition for leveling uneven ground.

INK CASTER AND CASE.—J. M. Kennedy, Vicksburg, Miss.—The object of this invention is to provide an article of desk and table furniture containing a number of useful things, all of which relate to clerical operations, that is to say, to the performance of uniting ruling, sealing, dating, and the like.

KNIFE AND SCISSORS SHAPENER AND CLEANER.—Wm. Miller, Chicopee, Mass.—This invention relates to a new device for sharpening and cleaning table and other knives, and also for sharpening scissors, and it consists in the knife-cleaning apparatus, which is composed of a series of vertical leather or other plates, which are arranged between a spring and a screw, so that they may be pressed together with suitable force.

TREATMENT OF WASTE LIQUOR PRODUCED IN THE MANUFACTURE OF GELATIN BY MURIATIC ACID.—Frederick Bihn and Wm. Schrader, Frankford, Pa.—The object of this invention is to separate the ingredients of the waste liquor which is produced in those glue factories in which gelatin is made by treating certain bones with diluted muriatic acid; and the process consists in separating the ingredients by the evaporation and subsequent condensation of the muriatic acid, whereby the phosphate of lime remains as a residuum. The invention also consists in treating the waste liquor with sulphuric acid, for the purpose of aiding and facilitating the aforesaid evaporating process.

CAR COUPLING.—W. G. Bell, Pittsburgh, Pa.—The object of this invention is to provide a simple and effective car coupling, by the employment of a double-headed connecting bolt, pointed at the ends, and arranged to enter the bell-mouthed buffers and separate a pair of spring-actuated clamping jaws, so that the heads will pass beyond the said clamping jaws which close behind the said heads and establish the connection of the cars automatically. The said jaws are adapted to be opened behind when the cars are to be uncoupled.

OPERATING HEAD BLOCKS IN SAW MILLS.—John F. Cook, Baltimore, Md.—This invention consists in an arrangement of parts whereby either head block may be moved into any desired position on the carriage with comparative ease by one man; also, in a novel mechanism for producing either a simultaneous or independent movement of the knees, as may be desired; also, in a graduated device for regulating the movement of the knees.

GATE LATCH.—Benjamin Hendrickson, Huntington, N. Y.—The object of this invention is to provide a means by which farm and other gates may be sustained partially upon the latch post while the gate is closed, and also operated more easily in closing and opening the same.

PLOW.—J. L. Stearns, Mahomet, Ill.—The object of this invention is chiefly to provide a riding or sulky plow, so-called, which is adaptable as a gang breaking plow, or a subsoil plow, by merely changing the plows, that is to say, by attaching the proper plows to the sulky.

PLOWING HOE.—Thomas J. Mason, Harmony, Maine.—This invention has for its object to furnish an improved plowing hoe, simple in construction, strong, durable, not liable to get out of order, easily repaired, and which will do its work well and thoroughly, requiring no plow or cultivator to be previously used.

DRESSING GLASS REFLECTORS.—Charles Furber, London, England.—This invention relates to improvements in dressing glass reflectors, whereby it is designed to provide an arrangement of the same that will facilitate the inspection of the back part of the head, or other portion of the body while dressing.

SUSPENDING SCISSORS.—J. H. Kuttner, Hempstead, Texas.—This invention relates to an improvement in the method of suspending scissors in dry goods stores, and in other situations, whereby they are rendered more useful by being made more available than they have hitherto been.

TOOL FOR CUTTING MOLDINGS.—D. W. Perry, Wilkesbarre, Pa.—This invention relates to planing machines for cutting moldings, and it consists in the manner in which the bit or cutter is formed, and in the manner of its attachment to the head, whereby many objections to the common method are obviated, and many advantages secured.

SIGNAL LANTERN.—John Graham, Grafton, W. Va.—The object of this invention is to provide a simple, cheap, and convenient signal lamp for railroad use.

TOY PISTOL.—Thomas E. Marable, Petersburg, Va.—This invention relates to that class of toy guns and pistols, in which the projectile is forced from the barrel by means of an elastic cord, and it consists in providing an adjustable stop which will prevent the ball from accidentally falling out of the barrel, although not interfering with the operation of the toy when the cord, having been drawn back over the notch, is disengaged therefrom by the trigger.

CULTIVATOR.—Clark Alford, Westford, Wis.—This invention comprises four separate improvements in cultivators, namely: 1st, a new method of attaching the teeth; 2d, a new device for holding them in the ground; 3d, an improved apparatus for cleaning them; and, lastly, a novel construction of the frame, draft pole, and cleaning apparatus, for the purpose of enabling the teeth to be raised or lowered conveniently, and of fixing them in contact with the ground or at any required elevation above it.

CLOTHES LINE FRAME.—William H. Acker, Tarrytown, N. Y.—This invention relates to a new and improved frame for the purpose of fastening clothes lines thereto, so that they may be drawn to a proper state of tension when clothes lines are adjusted upon them.

SANITARY BRACE.—F. Pinckard, New Orleans, La.—The object of this invention is to force persons to keep their mouths closed, and to breathe through their noses during sleep.

CORN PLANTER.—John D. Chambers, Carthage, Mo.—This invention consists of an improved arrangement to permit the plows to follow the inequalities of the ground, and to be raised out of the ground, when moving to or from the field; also, certain improvements in the plows, the dropping apparatus, and the framing, designed to provide an efficient machine of cheap construction.

BEDSTEAD FASTENING.—William Johnston, Appleton, Wis.—This invention has for its object to furnish an improved bedstead fastening, strong, durable, simple in construction, not liable to get out of order, and which may be easily attached and detached.

HYDROCARBON BURNER.—Louis Verstraet, Paris, France.—This invention relates to improvements in the use of petroleum or other mineral oils for fuel for generating steam in steam boilers, and for other purposes. It consists in the peculiar construction and arrangement of furnaces and discharge tubes and oil reservoirs, in the use of air which has been saturated with the vapor of petroleum in the reservoir, in combination with the petroleum in the process of combustion, and in supplying the boiler in part with the water condensed from the vapors evolved in the process of combustion on their passage through the smoke flues of the boiler.

DRESSER COPPER.—W. H. Boyden, Rockland, R. I.—The object of this invention is to construct a dresser copper for dressing cotton warp, in such a manner that the edges of the copper with which the threads come in contact can be finished smoother than heretofore, and when in use will wear away more slowly; and so that when the parts of the metal in contact with the threads become worn to any extent, so as to endanger the threads, they can, without cutting the threads, and reaming out the copper, be adjusted in a few minutes so as to bring a new surface of metal in contact with the threads; thereby saving a great deal of time and labor and rendering the instrument much more convenient to operate than heretofore.

CONDUCTORS' PUNCH.—J. and G. D. Friese, Baltimore, Md.—The object of this invention is to improve the common instrument for cutting eyelets in paper, leather, cloth, etc., that the spring that forces the jaws apart will not wear out or get out of order so soon, while the piece punched out of the paper, leather, etc., will be more certainly and effectually removed from the tooth or cutter.

HARROW.—O. W. Edmonds, Bluffdale, Ill.—This invention consists in connecting two rotating harrows to a supporting beam or frame by adjustable connections, whereby they may be changed in reference to the distance from each other, and in providing a spring or springs in connection with the shafts of the harrows and the supporting frame, whereby the inclination of the harrows with reference to the surface of the ground may be governed, as also the duration of their rotation.

SHUTTER AND BLIND FASTENING.—W. B. Farrar, Greensboro, N. C.—This device relates to that class of locks or fastenings which are applied inside of a building to secure the bolt by which the shutter bar is confined; and it consists in a lock so constructed and operating that such bolt cannot be removed by a person outside of the building, while it can be fastened at any time from the outside without the necessity of going within.

PREPARING COD FISH.—Elisha Crowell, New York city.—The object of this invention is to so prepare cod or other fish that it shall be divested of everything not edible, which unnecessarily adds to its weight and bulk, and shall be reduced to the most convenient form for handling and transportation, while at the same time it is sufficiently protected from the action of the air.

COAL CHUTE.—H. Merriman, Bloomington, Ill.—This invention relates to a new and useful improvement in coal chutes used for loading and discharging coal into boats, cars, or vehicles of any kind, whereby the operation of discharging coals is greatly facilitated.

HORSESHOE.—Robert G. Jameson and Wm. H. Chamberlain, Bristol, N. H.—This invention relates to a new and improved method of constructing horseshoes, whereby they are rendered much more useful than horseshoes made in the ordinary manner, and it consists in forming a curved bar with the calks formed on it, and attaching it to the shoe.

COMPRESSION COCK.—G. E. Boisselier, St. Louis, Mo.—This invention relates to improvements in cocks for discharging liquids or fluids, and it consists in operating a socket valve within the shell of the cock by revolving the stem.

MACHINE FOR QUARTERING APPLES.—Clark E. Billings, Warren, Vt.—This invention relates to an improved machine for quartering apples in the process of preparing them for drying, cooking, or other purposes, and the invention consists in pressing the apple into horizontal knives by a plunger operated by a spring lever.

BRIDLE.—John McKibben, Lima, Ohio.—This invention relates to a new and improved bridle, difficult to explain without an engraving.

SEWING MACHINE ATTACHMENT.—James Wensley, New Brunswick, N. J.—The object of this invention is to provide an improved adjustable guide for sewing machines, and also an improved adjustable presser.

METHOD OF IMPRINTING THE GRAIN OF WOOD ON PAPER OR OTHER SUBSTANCES.—Johann Bongardt, New York city.—This invention relates to a new process for producing on paper or other material a beautiful imitation of the various grained woods, and it consists in so treating the planed surface of a piece of grained wood that it can itself be used as a block for copying its grain with great accuracy upon the paper. In this manner the most exquisite imitation wood paper hangings, and even imitation veneers, can be produced at a trifling expense.

MACHINE FOR FORGING AND SHAPING RIVETS, SCREW BLANKS, ETC.—Francis Watkins, Birmingham, England.—This invention relates to a new machine for heading rivets, screw blanks, and other bars, when the same are prepared in pieces of the required length. The machine is so made that two sets of heading devices are in constant operation, a head being formed alternately on each machine, so that the power required for one machine is utilized to operate two. The invention consists chiefly in the use of two rotating disks, mounted at the ends of a shaft, on which shaft is also placed and keyed a ratchet or feed wheel, worked by a hooked rod which is pin-jointed to a lever acted on by a cam on another shaft. In the periphery of each of the disks or the carriers are placed dies for receiving the shanks or necks of the rivets, bolts, screw blanks, or other articles to be headed. Inside of these dies are "tippers" or sliding bolts for holding the blanks to their work, and for discharging the same when finished. These tippers perform their work by means of their inner ends being cranked and resting in the grooves of a stationary cam, one such cam being arranged within each rotating disk. The tippers are made of two pieces screwed together, so that they may be adapted to hold blanks of various lengths to the header. The two sides of the machine are alike, but the dies in the disks are arranged so that blanks are headed alternately on one and on the other side.

FLUTING MACHINE.—Wm. D. Corrister, New York city.—This invention relates to a new fluting machine in which the upper one of a pair of hollow corrugated rollers is hung in an up-and-down adjustable frame, which can be set by means of a vertical screw, while the required degree of pressure is apparatus by means of a spring coiled around the screw.

APPARATUS FOR UNLOADING AND STACKING HAY.—W. D. Brooks, Bethany, Pa.—This invention consists chiefly in a novel manner of operating the truck from which the fork or load is suspended, said truck running on a flexible track, which is fastened at one end, and which works around a swiveled pulley that is higher than the fastened end of the track, so that the latter is thereby lower at the fastened end, and causes the truck to move automatically toward the same. But when it is desired to make the truck move toward the pulley, the flexible track is slackened, and a cord fastened to the truck is pulled, so as to cause the track to be higher at the fastened end.

MACHINE FOR PUNCHING AND SHAPING SCREW NUTS, ETC.—Francis Watkins, Birmingham, England.—This invention consists chiefly in operating both the cutting as well as the punching tools of two machines from one single shaft. On the main shaft of the machine is a driving wheel, which gears into a spur wheel and thereby drives another shaft, on which are keyed two cams, actuating two slides which carry compound punches; the solid punches carried by one slide working within the ring punches carried by the other. The machine is double acting, and there are similar tools at each end of each slide. The slide which carries the ring punches actuates two other slides, opposite its two ends, by means of rods fixed to the first slides and passing through the others. The rods have adjustable nuts upon them and allow a certain amount of independent motion in the end slides which also carry ring punches similar to those carried by the slide which actuates them. Dies or forming boxes in which the articles to be made are formed, are secured to the frame of the machine by means of bolts or otherwise.

REFRIGERATORS.—S. Wheat, Middletown, N. Y., and D. B. Wheat, New York city.—This invention has for its object to furnish an improved refrigerator which shall be simple in construction and effective in operation, preserving the provisions or other substances placed in it for a longer time, and with a less supply of ice than is possible when the refrigerator is constructed in the ordinary manner.

COMBINED BAND CUTTER AND FEEDER.—P. G. Biggs, H. Granger, H. A. Butler, Macon city, Mo.—This invention has for its object to furnish an improved machine by means of which the bands of the bundles or sheaves of grain may be cut and fed automatically to the threshing machine with a spreading movement, so as to enter the said threshing machine in proper position for being threshed.

SEED PLANTER.—Isaac Rexford, Malone, N. Y.—This invention has for its object to furnish an improved seed planter, simple in construction, effective and convenient in operation, doing its work accurately and well, and which may be easily adjusted to plant various kinds of seed.

BRIDLE BITS.—William S. Robbins, New Bedford, Mass.—The object of this invention is to provide a bit for a horse bridle, in such a manner as to form a safety bit at all times in addition to an ordinary bit.

AUTOMATIC STOP FOR MINING CARS.—James Tamblin, Virginia city, Nevada.—The object of this invention is to provide a simple automatic stop to prevent mining cars from running into the shaft before the "cage" is up at the mouth or top of the shaft to receive the car.

SPADE.—Michael Connolly, Newark, N. J.—This invention relates to a new and improved spade, and it consists in a peculiar construction of the same, whereby the earth may be dug considerably deeper than with an ordinary spade, and with less labor.

SCOOP.—Thomas B. Davis, New York city.—This invention relates to a new and improved mode of constructing sheet-metal scoops in one piece of metal, whereby they may be manufactured at a less cost and in a superior manner to those ordinarily made.

HARVESTERS.—Mason Gibbs, Homer, Mich.—This invention relates to a new and useful combination of a reel and rake for harvesters.

PLOWSHARE.—George W. Cooper, Ogeechee, Ga.—This invention relates to a new mode of constructing plowshares, and also to a new manner of s

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cutting the same to the foot. The plowshare is made of cast iron, and by its peculiar shape and construction, it can be made without a land side plate.

CLOTHES BELLETS.—Daniel Kelloz, Ypsilanti, Mich.—The nature of this invention relates to the cleansing of clothes by circulating boiling water through them.

HORSE BRUSHES.—W. W. McKay, Oskola, Iowa.—This invention relates to improvements in horse brushes, whereby it is designed to provide a rotating brush, to which motion may be readily communicated by hand, and so arranged as to admit of the substitution of one brush or comb for another readily.

PRESERVING WOOD.—Nicholas G. Szerebney has taken an English patent for preserving wood, as follows: A solution is made of 10 lbs. of powdered potassa and 40 lbs. of powdered lime in 30 gallons of boiling water, and another of 150 gallons of cold water and 10 lbs. of sulphuric acid.

WELDING IRON.—William Bredius Adams, the well known English engineer, has taken out a patent in England for welding iron, the chief points of which are, that he first makes the surfaces to be joined perfectly true, clean, and close fitting, by planing or otherwise, and then heats them by the aid of jets of gas and air supplied under pressure.

DRESSING MILLSTONES.—Robert Young, of Glasgow, Scotland, has taken out an English patent for machinery for leveling and dressing millstones by the aid of diamond or other suitable cutters, which have a recircular motion only given to them.

BLOCKING BLOCKS.—Louis Mendenhoff, of St. Mary's Ave, has taken out an English patent, as a communication from Nicolaus Schroder, of Greentzsch, Rhensish Prussia, for compositions for forming blocks to be used for building purposes.

PRESERVING WOOD.—Wm. R. Lake, as the agent of Segismund Beer, of New York city, has taken out an English patent for a method of preserving wood by treating it with a boiling solution of borax, the object being to remove the perishable matters without injuring the woody substance.

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 send information from us; beside, 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 replies to questions of a purely business or personal nature. We will publish such inquiries, however, when said for us advertisements at \$2.50 a line, under the head of "Business and Personal."

References to back numbers should be by volume and page.

William Mason, of Oregon. Thirty nine dollars received of Wells, Fargo & Co., October 8, 1868, said to have been sent by the above. No advice accompany the money; what is it for?

T. J. M., of Ontario.—Neither Habbitt metal or any composition of metals for bearings will so well suit your case as boxes made of hard maple. These can be adapted to the shaft by the use of oil and plum-bago. This composition will give a surface for shaft journals fully equal to that of the best anti-friction metals.

N. H. D., of Mich.—A hollow iron bar containing the same amount of metal as a solid one, and of the same extreme length would resist a greater strain, if suspended by its ends and the weight applied between, than the solid bar. But a solid bar would resist a greater strain of tension or twisting, or of rupture by being drawn longitudinally apart, than a hollow one of the same diameter, as is evident by comparing a one inch bar of wrought iron and a gas pipe of similar diameter.

H. R. P., of Mass.—A pan of water set upon a hot stove will sometimes commence and continue boiling for a while; why is it? Ans.—The heat generates vapor of water, or steam at the bottom which in expanding between the stratum of water and the bottom of the pan, reacts upon it and sets it to rocking, provided the bottom is not perfectly flat. The sudden expansion of the cold metal of the pan might also be supposed to account for the fact, vide the old experiment of a hot bar of iron laid across two edges of cold metal described in text-books or physics. The matter you claim as a discovery, we cannot notice unless you transmit to us the evidence that you are the discoverer, and the methods by which you demonstrate the fact.

J. C. S., of Mass., writes us to ascertain the chemical process by which cotton is separated from wool, which he says is well known to manufacturers in this country and in Europe. Will any of our correspondents give us the information?

A. G. C., of—To make iron combine with sulphur you should first heat the iron. It may be successfully done, however, by projecting into a red hot crucible, little by little, a mixture of sulphur and iron filings, maintaining all the while a high temperature. When all has been put in the crucible it should be covered and the mass heated until it fuses.

R. B., of N. J.—There are patent signals which would be very useful to notify passengers when approaching stations, and it is the fault of railroad companies that such signals are not in use.

G. C. of Ohio.—A State court has no jurisdiction in patent causes where the trial is for infringement, but if a fraud has been practiced upon you, you can commence suit in a state court.

R. A., of Pa.—If a party has been using your invention, the very fact of such use is good evidence of its utility, and would assist you in maintaining a claim for damages.

C. and P., of Ky.—It is a frequent occurrence to receive electric sparks from large belts running at high speed. Those you described had probably no connection with the meteoric shower occurring at the time.

H. B. C., of Pa., writes us that iron turnings in Pittsburgh are worth from fifteen to eighteen dollars per gross ton, delivered at the iron mills for manufacture.

C., of Mass.—The concave lens of an opera glass, only produces sufficient divergence in the rays conveyed by the convex lens that distinct vision is produced. Being placed within the focal distance of the convex lens, no inversion takes place.

B. F. K., of N. Y.—Soapstone is found at Grafton, Athens, Westfield, and Marlborough, Vt., and in many other places, in N. H., Mass., N. C., Md., and Va. It can be made into slate pencils by sawing.

The Charge for insertion under this head is One Dollar a Line. If the Notices exceed Four Lines, an Extra Charge will be made.

Manufacturers and dealers in farming implements should advertise in the Mobile, Ala., Weekly Register. See advertisement, back page.

Francis & Lourel, 45 Maiden Lane, have a fine assortment of diaries and daily journals for the new year.

Manufacturers of punches please send address to Geo. C. Wilder, Manhattan, Kansas.

Water-power, with grist & saw mill, 90 miles from N.Y., for sale. Good location for paper mill or manufactory. H. Stewart, Stroudsburg, Pa. Inventors, master mechanics, and machinists who wish to keep posted on the doings of manufacturers in every part of the United States, should read the Boston Commercial Bulletin's special reports. Bulletin, \$4 a year.

For first-class white oak plow handles address Clute, Van Do Mark & Co., Waterloo, N. Y.

Lead pipe, sheet and bar. For a good article address Bailey, Farrell & Co., Pittsburgh, Pa.

Don't use green lumber. To dry it, in 23 days, for \$1 per M, address Superheated Steam, 125 Fulton st., N. Y. Dries all substances.

Manufacturers Attention. An eligible location in a large and growing town near New York, on deep tide water, and very accessible, will be given to a reliable manufacturer company who will erect buildings for manufacturing purposes. Address M. E. Mead, Durler Depot, Ct.

Stimson's velocipede—two, three, or four wheeled—power great, applied to best advantage, balances itself, runs up heavy grades, in heavy sand, or mud, on snow or ice. Patented in Ontario and Quebec, United States and European Patents pending through the Scientific American Patent Agency. James Stimson, M.D., St. George, Brent Co. Ont., Can. Fire-arm patent for sale.—The patent for breech-loading fire-arm, issued to Robert E. Stephens, June 11, 1867. A new and useful improvement. For terms, address C. Legge, box 763, New York Postoffice.

J. J. White, Newark, N. J., will make and introduce to the trade all descriptions of sheet-iron, cast metal small wares, dies and tools for all kinds of cutting and stamping patterns, etc., etc., for new and experimental work.

For Olmsted's offer, described in No. 26, last volume, SCIENTIFIC AMERICAN, address L. H. Olmsted, No. 1 Center st., New York.

Peck's patent drop press. For circulars, address the sole manufacturers, Milo Peck & Co., New Haven, Ct.

Thomas James, No. 2 Coenties Slip, New York, wishes to obtain the address of a manufacturer of iron pipe lined with glass.

Piano makers should advertise in the Mobile, Ala., Weekly Register. The musical, art, and dramatic columns, make it a great favorite with the ladies. Sewing-machine manufacturers can do no medium equal to it for advertising their machines.

Wanted. A good man, thoroughly posted in the working of spoke and wheel-making machinery, as foreman in a wheel factory at Marietta, Ohio. A good salary will be paid to one who can come well recommended. Address F. W. Minshall, Sec., Postoffice box 264, Marietta, Ohio. See A. S. & J. Gear & Co.'s advertisement elsewhere. Keep posted.

For descriptive circular of the best grate bar in use, address Hutchinson & Lawrence, No. 8 Day st., New York.

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

Portable pumping machinery to rent, of any capacity desired and pass sand and gravel without injury. W. D. Andrews & Brother, 414 Water st., New York.

N. C. Stiles' pat. punching and drop presses, Middletown, Ct. Prang's American chromos for sale at all respectable art stores. Catalogues mailed free by L. Prang & Co., Boston.

The condition of affairs in the Southern States is of deep interest to business men now. They should read a reliable journal from a central point there. The Mobile Register, Daily or Weekly, is a most excellent news and commercial paper. Subscribe for it. See advertisement outside.

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Official List of Patents.

Issued by the United States Patent Office.

FOR THE WEEK ENDING DECEMBER 15, 1868.

Reported Officially for the Scientific American.

SCHEDULE OF PATENT OFFICE FEES: On filing each caveat \$1.00 On filing each application for a Patent (seventeen years) \$5.00 On issuing each original Patent \$20.00 On appeal to Commissioner of Patents \$20.00 On application for Reissue \$20.00 On application for Extension of Patent \$20.00 On granting the Extension \$20.00 On filing a Disclaimer \$10.00 On filing application for Design (three and a half years) \$10.00 On filing application for Design (seven years) \$10.00 On filing application for design (fourteen years) \$10.00

In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$500 on application.

Patents and Patent Claims.—The number of patents issued weekly having become so great, with a probability of a continual increase, has decided us to publish in future, other and more interesting matter in place of the Claims. The Claims have occupied from three to four pages a week, and are believed to be of interest to only a comparative few of our readers. The publication of the names of inventors, and title of their inventions, will be continued; and, also, as heretofore, a brief description of the most important inventions. We have made such arrangements that we are not only prepared to furnish copies of Claims, but full Specifications at the annexed prices:

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 upward, but usually at the price above named. The full Specification of any patent issued since Nov. 9, 1866, at which time the Patent Office commenced printing them \$1-25 Official Copies of Drawings of any patent issued since 1836, we can supply at a reasonable cost, the price depending upon the amount of labor involved and the number of views.

Full information, as to price of drawings, in each case, may be had by addressing MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

- 84,851.—SLIDE FOR HANGING UPRIGHT SAWS.—Ashbel P. Burlew, St. John, Canada. 84,852.—SIDE SCRAPER FOR WELLS. Elias Beach, Titusville, Pa. 84,853.—OIL INJECTOR FOR STEAM AND OTHER ENGINERY. Robert Brayton, Fremont, Ohio. 84,854.—INSTRUMENT FOR ACCUPUNCTURE.—Anson R. Brown, M. D., Abiona, Mich.

- 84,855.—MODE OF PRESERVING BAIT FOR FISHING.—Edward E. Burnham (assignor to himself and George Brown), Gloucester, Mass. 84,856.—ROOFING COMPOSITION.—Berk Capron, Lee Center, N.Y. 84,857.—HARVESTER RAKE.—R. Carlucci (assignor to himself and P. H. Wilson), Lewisburg, Pa. 84,858.—CHURN.—James Carleton, Willa Walla, Washington Territory. 84,859.—FIRE SHIELD. John C. Clarke, La Grange, Mich. 84,860.—JAW CUTTING SHEARS.—L. D. Craig, Nevada City, Cal. 84,861.—HEEL FOR BOOTS AND SHOES.—Albert O. Crane, Boston, Mass. 84,862.—BOOT JACK.—Joseph Darden, Washington, D. C. 84,863.—BRICK MACHINE.—James C. Denn, Chicago, Ill. 84,864.—GASKET PACKING FOR STEAM AND OTHER ENGINERY.—Byron Denmore, New York city. 84,865.—GAME OF COLORS. Charles H. Douglas, Hartford, Conn. 84,866.—PROCESS OF SCREENING CHARCOAL.—J. S. Evans, Irondale, Me. 84,867.—COMPOUND FOR DESTROYING INSECTS.—Wm. R. Fairbairn, Tiddeletownship, Ill. 84,868.—METHOD OF ATTACHING KNOBS TO THEIR SPINDLES.—Wm. A. Fean, Waleon, N. Y. 84,869.—BLANK BOOK.—Jerman Fischer, Chicago, Ill. 84,870.—MACHINE FOR DISTRIBUTING FERTILIZERS. John F. Fisher, Greenastle, Pa., assignor to himself and Daniel Breed, Washington, D. C. 84,871.—SHOEMAKERS' BENCH.—David Fisk, and J. M. Bloodgood, Clyde, N. Y. 84,872.—LOOM.—Wm. T. Flinn (assignor to Barton H. Jencks), Bredesburgh, Pa. 84,873.—BEATING CREAT.—Charles S. H. Foster, Deer Isle, Me. 84,874.—MENTHUAL RECEIVER.—Theodore A. Ganiage, Boston, Mass. 84,875.—PIPE COUPLING.—Hachadrop P. Garbadian, Philadelphia, Pa. 84,876.—CORN HUSKER.—J. Irving Gordon, Sing Sing, N. Y. Antedated Dec. 11, 1858. 84,877.—TILE FOR FLOORS, SIDEWALKS, ETC.—John Gray, San Francisco, Cal. 84,878.—MODE OF FASTENING INDIA-RUBBER TIRES ON CAR-WHEELS.—J. Ashton Greer, Brooklyn, N. Y. 84,879.—SHUKY HARROW.—E. W. Hewitt, Pucationia, Ill. 84,880.—SPIRIT LEVEL.—Collins F. Hill, Hamilton, Ohio. Antedated Dec. 3, 1868. 84,881.—METALLIC LATH.—Isaac V. Holmes, New York city. 84,882.—MANUFACTURE OF FANS.—Edmund S. Hunt, Weymouth, Mass. 84,883.—ROCK DRILL.—Michael Keefer, Millstone Point, Md. 84,884.—DOVE-TAILING MACHINE.—Charles F. Kidnie, Washington, D. C. 84,885.—FISHING TACKLE.—J. D. Leach, and Sabin Hutchings, Fenobscot, Me. 84,886.—REVOLVING PINE HOOP.—J. D. Leach, and Sabin Hutchings, Fenobscot, Me. 84,887.—HARVESTER.—Samuel K. Lighter and Joseph Curtis, Hamilton, Ohio. Antedated Dec. 3, 1868. 84,888.—APPARATUS FOR COOLING LIQUIDS ON DRAFT.—Joseph Link, United States Army. 84,889.—GAS HEATER.—David H. Lowe, Boston, Mass. 84,890.—COVER FOR FUEL MAGAZINE IN BASE BURNING STORES.—Robert Macy (assignor to John H. Keyser), New York city. 84,891.—SEAT-BOLT FOR RAILWAY CARS.—Peter H. Mann, and Orville P. Terry, Albany, N. Y., assignors to Andrew B. Ulmer, and G. R. Adler. 84,892.—WAGON BOX.—Thomas H. Marey, Windham, Ohio. 84,893.—PROCESS OF CURING HAMS, BEEF, AND OTHER MEATS.—Oliver M. Martin, Ann Arbor, Mich. 84,894.—PLATE OR SALVER.—H. McManus and John B. Hatting, New York city. 84,895.—WHEAT DRILL.—Daniel McSherry, Dayton, Ohio. 84,896.—RAILWAY SWITCH SIGNAL.—I. Ferguson Morsell, Stamford, Conn. 84,897.—STAVE MACHINE.—Charles Mardock, Hartford, Conn. 84,898.—WATER MACHINE.—Daniel F. Myers, New York city. 84,899.—FASTENING FOR CORSETS.—Peter H. Niles and Frank W. Marston, Boston, Mass. Antedated Dec. 3, 1868. 84,900.—GROMMET.—Joseph W. Norcross, Boston, Mass. Antedated Nov. 30, 1858. 84,901.—BRICK MACHINE.—John W. Pease, (assignor to himself, Leonard Willets and Isaac Willets), Belmont, N. Y. 84,902.—BUTTON HOLE CUTTER.—William S. Porter, Boston, Mass. 84,903.—CLOTH MEASURING APPARATUS.—John Edwin Race and Aaron Smith, Chicago, Ill. 84,904.—MACHINE FOR WASHING PRINTERS' INK-ROLLERS.—O. H. Reed and Asa L. Currier, Washington, D. C. 84,905.—APPARATUS FOR SHEARING SHEEP.—Hiram A. Reid, Beaver Dam, Wis. 84,906.—CIGAR CASE.—Selden N. Risley, Brooklyn, N. Y. 84,907.—MACHINE FOR RIVETING HINGES.—Henry M. Ritter, Covington, Ky. 84,908.—BAKING PAN.—Sullivan W. Rogers, Hatwich, Mass. 84,909.—CLAMP FOR SUSPENDING PASTE-BOARD AND OTHER MATERIALS.—Edwin H. Saupson, Boston, Mass. 84,910.—HAND CULTIVATOR.—John Scheiblin and John Heitzman, Philadelphia, Pa. 84,911.—CULTIVATOR AND PLOW.—Samuel F. Seely, Whitford, Me. Antedated Dec. 11, 1868. 84,912.—PUMPING ENGINE.—Thomas Shaw, Philadelphia, Pa., assignor to himself and Philip S. Justice. 84,913.—WINDOW-SHUTTER.—S. M. Sherman, Fort Dodge, Iowa. 84,914.—AUTOMATIC STOP COCK FOR GAS BURNERS.—George E. Smith, San Francisco, Cal. 84,915.—HOT IRONING MACHINE.—George W. Stout and John C. Richardson, Newark, N. J., assignor to themselves, James Duff, Jr., and S. R. Howler, assignors to said Stout, James H. Frantice, said Davis, Jr., and Hawley. 84,916.—SAW GRINDER.—Elias Strange, Elias W. Strange, and Emerson C. Straube, Taunton, Mass. 84,917.—HORSE RAKE.—Edwin J. Toof, Fort Madison, Iowa. 84,918.—WASH-ROLLER.—Charles N. Tyler, New York city. 84,919.—CLOTHES LINE REEL.—John Valentine and Henry B. Stevens, Buffalo, N. Y. 84,920.—BASE BURNING STOVE.—Henry B. Van Benthuysen, Emporium, Penn. 84,921.—MILK CAN.—H. M. Vietz, Carlisle, Ohio. 84,922.—BREECH-LOADING FIRE-ARM.—Ernest Von Jensen, New York city. 84,923.—HYDRAULIC WASH BOTTLER.—J. B. Waring, Brooklyn, N. Y., assignor to Hiram Daryea, New York city, assignor to E. W. Dickson, Chelsea, Vt. 84,924.—WASHING MACHINE.—Aretas A. Wilder and John Wilder, Detroit, Mich. 84,925.—BELT PATENER.—G. Greenleaf Wilson, Nashua, N. H. 84,926.—CLIPPING SHEARS.—John C. Wilson, Adam Walker, and John Foster, New York city. 84,927.—HARVESTER.—George W. N. Yost, Corty, Pa., assignor to the Cory Machine Company. 84,928.—CLOTHES DRYER.—Wm. H. Acker, Tarrytown, N. Y. 84,929.—BREECH-LOADING FIRE-ARM.—Ethan Allen, Worcester, Mass. 84,930.—SROVEPIPE DAMPER.—Levi O. Allen, Gardiner, Me. 84,931.—CULTIVATOR.—Clark Alvord, Westford, Wis. 84,932.—MODE OF PLATING SCALDS WITH HARD RUBBER, FOR THE MANUFACTURE OF CUTLERY, AND FOR OTHER PURPOSES.—Ferdinand Beils, New Haven, Conn. 84,933.—CAR COUPLING.—W. G. Bell, Pittsburgh, Pa. 84,934.—MODE OF RECOVERING USEFUL PRODUCTS FROM THE WASTE LIQUOR OF GREATS FACTORIES.—Frederick Bidd, and William Selphager, Frankford, Pa. 84,935.—CULTIVATOR.—Joseph J. Brinton, Thornbury town ship, Pa. 84,936.—CORN PLANTER.—John D. Chambers (assignor to himself and Erasmus D. Rowland), Carlisle, Me. 84,937.—HEAD BLOCK.—John F. Cook (assignor to George F. Page, Joseph Roberts and George L. McCahan), Baltimore, Md. 84,938.—BREECH-LOADING FIRE-ARM.—Joseph R. Cooper, Birmingham, England. 84,939.—HOISTING AND DUMPING APPARATUS.—W. B. Culver, Saratoga, Pa. 84,940.—AXLE.—Edward Finn, Berlin, Wis.