SPEED OF CIRCULAR SAW.—D. S. B. inquires as to this, and N. B., of Pa., answers that it will be safe to run 1,900 revolutions per minute. About 15 years ago, I gave 9,000 feet per minute for the rim of a saw to run as a proper speed, with some slight variations under certain conditions. This rule has been generally adopted. But N. B. would run it about 19,500. I assert that this is a random guess, without any practical demonstration; and, if put into practice, some one will get their brains split open. Nine thousand feet per minute for the rim will run a 52 inch saw about 698; 700 is plenty, and 400 revolutions will saw 10,000 feet per day easily.—J. E. E., of Pa.

TEMPERING STEEL BITS.—If H. G. will put in six quarts of soft water one ounce of pulverized corrosive sublimate, two ounces of pulverized sal ammoniac, and two handsfull of common salt, he will have no trouble in making his steel bits hard enough and tough enough. Let him heat the bits to a cherry red only, and plunge them in and not draw any temper.—W. M., of Ill.

THE APPIAN WAY.—Can you tell me the age of the Appian Way, and whether it was made of stone or asphalte?—L.—Answer: The Appian Way (*Via Appia*) extended from Rome to Capua, and was built by Appius Caecus the censor, in the year B.C. 312. It was made by first driving piles into the swampy ground to lay a solid foundation; then a layer of stones about the size of hen's eggs, then a course of rubble work in lime cement, then one of broken bricks and pottery, set also in cement, then a pavement of the hardest stone, fitted together with the greatest nicety. At the end of the road towards the city of Rome, the stone used is a basaltic lava. Two thousand and more years traffic has done little to wear this roadway, and the solidity of its construction is a standing reproach to the mud road makers of the present day.

BRITTLENESS OF HORSE HOOFS.—If E. E. S., query 18, February 24, 1872, will tie a woolen cloth saturated with vinegar and water (equal parts) loosely around the hoof two or three nights out of every week, he will find that the hoof will become soft and pliable. Do not let the cloth touch the hair. If the frog is hard, put a sponge soaked with weak soft soap in the bottom of the foot. At certain seasons of the year, I put this on all my horses' feet to prevent brittieness. This treatment is simple and clean, and instead of conveying disease (as many other preparations do) will prevent and cure fever in the feet, and often carry off disease.—J. A. F., of Mass.

BALANCING SLIDE VALVES.—In No. 8, current volume, you express doubts whether Western engineers balance only the ports in their slide valves. Having had some little experience this way myself, I should not hesitate to assert that any slide valve, having a greater amount of balance than this, however perfectly fitted, would not keep its seat during one revolution of the engine. At least, this has always been my experience.—F. F. H., of N. Y.

BREWING LIGHT ALES.—In answer to J. A. R.'s query, No. 9, page 138, Vol. XXVI., I would say: Let him take an ordinary firkin, put in a false bottom, full of holes, about one inch above the real bottom. Then lay a layer of clean straw over the holes. Then put in eight quarts of good malt and pour on it four gallons of hot water; after that has leached through pour on two gallons more hot water, and after that one gallon cold water; then boil the liquid of the three leachings thirty minutes, adding one quart good molasses and four ounces good hops. Stir it well; then strain it in a clean tub and, when about milk warm, add one and a half pints good yeast. Stir it well and let it stand until it rises and begins to fall, then skim off the yeast on top and save it for a future brewing. Bottle in strong bottles and set in a dark place; and you will have an excellent table beer. Lessen the quantity of malt if you want a weaker beer. This beer has been highly recommended by physicians for invalids.—C. S. P., of Mass.

FOUL AIR IN WELLS.—I occasionally find damp or foul air in wells. My plan for removing it is (if there is a pump in the well) to pump water down the well on one side. The water going down one side forces the air up the other, creating a circulation. I have tried other plans, such as throwing burning straw down the well and throwing hot stones down; but had very poor success compared to that with the pumping, as described above. Where there is no pump, I tie a common basket to a line, and operate it up and down the well; this soon gets a circulation, and so answers the purpose.—J. W. H.

Declined.

Communications upon the following subjects have been received and examined by the Editor, but their publication is respectfully declined:

GEOMETRICAL PROBLEM.—L. G.
PROPORTIONING TOOTHED WHEELS.—T. H.
SMALL POX.—W. H.
SUGAR MANUFACTURE.—C.
TESTING WATER WHEELS.—N. F. B.—G. C.—W. W. H.
ZODIACAL LIGHT.—S. B. C.
ANSWERS.—C. P.—S.—H. B.—F. C.—H. B. B.—C. C. W.—G. M. T.—W. H. R.—G. P.—W. H. B.—M.—C. F.—P.—H. D. I.
NOTES AND QUERIES.—C. V. R.—W. H. K.—C.—W. T. J.—D. S. H.—I.—G. K.—G. M. T.—F.

Recent American and Foreign Patents.

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

STEAM BOILER.—Michael Smart, of New York city.—This invention relates to an improvement in steam boilers whereby the steam is quickly separated from the water, and the danger of explosion is reduced, while at the same time the heat of combustion is more fully utilized than in other boilers. The invention consists principally in the application of a steam arch or vessel above the cylindrical body of the boiler, and in its connection with the latter in such manner that a smoke passage is formed between the two.

ELECTRIC CARRIAGE.—Lawrence W. Coe, of Auburn, N. Y.—It is intended to provide carriages adapted for being propelled by magnetic engines directly applied to the hind axle to which the wheels are to be keyed, so that the turning axle will turn the wheels; and for so applying the engine it is necessary that the frame, to which the shell or frame of the engine must be connected, be arranged directly on the axle without springs, for any vibration of the engine, except with the axle, would interfere with the proper working of it. And as it is highly important that the body of the carriage be capable of springing, it is mounted at the rear on springs which are mounted on the axle independent of the engine frame, which is also mounted on the axle but without springs; and at the front of the box or body it is hinged to the frame. In making very short turns in narrow streets where a carriage has to be backed up to the curbstone, it is necessary with carriages having the steering apparatus arranged in the common way, to turn the wheels nearly around a half circle to bring them from where they stop in backing up to the right position for going forward. The inventor therefore proposes to have the hounds circular and provide the lower one, which is supported on springs, with cogs all the way round, and mount a hand shaft and pinion on the upper one, which is suspended rigidly from the carriage frame, so that the wheels may be turned wholly around, by which, in such cases, they may be brought into the required position much quicker and by a shorter movement than when turned back in the ordinary way. The wheels are made of thin disks of sheet metal, preferably steel, punching out the axial holes for the hub, and other places, to remove all surplus metal and to fit them on the ends of a long hub, against collars, springing the disks very nearly or, in some cases, entirely together near the peripheries, which are beveled and curved outward for the reception of india rubber tires. The parts riveted together are attached to a concave or square grooved metal tire, in which the india rubber tire is placed. The disks are clamped against the collars by nuts screwing on the hub. This hub is preferably made of wrought iron or steel and fitted up by turning in a lathe, but it may be made of malleable cast metal. Instead of applying the brakes to the rims of the wheels, as is common in land carriages, but which cannot well be done when india rubber tire is used, a friction wheel on the axle and a friction band is used with actuating levers for working it; one end of said band being connected to the carriage frame and the other to the lever in the usual way of arranging brakes of this character.

TRAVELING BAG.—Jacob Lagowitz, of Newark, N. J.—This invention has for its object to furnish an improved mode of making traveling bags, etc., by means of which the cover of the frame, the cover of the bag, and the lining may all be sewed at the same time, and with a sewing machine; and it consists in the mode of making the bag, as hereinafter more fully described. In making traveling bags in the old way, the edges of the cover, or the frame and the edge of the cover of the bag, were brought together upon the inside, and sewed by hand. The edge of the lining was then brought over the seam thus formed and sewed by hand, thus requiring two rows of hand sewing all around each half of the bag. In making a bag in accordance with this invention, the edges of the cover of the frame are brought together at the edge of the frame and turned outward. The edge of the cover of the bag and the edge of the lining are then brought together and placed upon the inner side of the edges of the frame cover, a narrow strip of the lining being interposed between the edges, which are then sewed together by a machine, the free edge of the strip being afterward pasted down over the edges of the cover and lining.

BRUSH FOR APPLYING BLACKING TO BOOTS AND SHOES.—Nathan Eisenmann, of New York city.—This invention has for its object to furnish a simple and convenient brush for applying liquid blacking to boots and shoes, and for various other uses; and it consists in constructing the brush proper, or the parts rigidly connected therewith, so that it shall be adapted to be attached to the nozzle of a can. With this brush the blacking can be applied to the surface of boots and shoes readily, conveniently, and quickly, and at the same time without danger of soiling the hands.

CAR WINDOW.—William McCaull, of Philadelphia, Pa.—This invention has for its object to improve the construction of the windows of railroad cars, street cars, etc., so that they may be more convenient and reliable in use and more satisfactory in operation than when arranged in the ordinary manner. It consists in an elastic cord and adjustable plate in combination with the box, stile pulley, and the sash or blind of the window, so that, when the sash or blind is lowered, the cords are put under tension, and when released the elasticity of the cords shall close the sash to its proper place.

GOPHER TRAP.—John Bowman, of Santa Cruz, Cal.—This invention consists principally in providing the outer end of the trap with an appliance whereby the interior can be made light or dark at will. The gopher's habit is to repair whatever damage is done to its burrow, to close holes that may be made by outsiders, and open such that have been closed. The trap can be adjusted to suit either plan, and is made dark when put within an open hole, to cause the attempt at reopening, and light when put into a closed passage to attract the animal's attention and attempt at reclosing. The invention further consists in a peculiar arrangement of spring, trigger, and swinging gate, all being so made that the trap cannot easily get out of order, and will be convenient for use and inspection.

WELL AUGER.—Francis Spees, of Tabor, Iowa.—This invention furnishes an improved auger for boring wells and for other earth boring purposes. The upper part of the worm is preferred to be made of a larger diameter than the lower part, so as to ream out or enlarge the hole, part of the dirt being thus received upon the upper part of the worm, thus diminishing the friction of the dirt upon the worm, and, consequently, the power required to operate the auger. In this case, a lip should be attached to the edge of the lower end of the enlarged part of the worm, to shave off the sides of the hole and leave them smooth. The hole may also be reamed out by a projecting vertical knife, the ends of which are bent inward and are attached to the flange or thread of the worm. By this construction, when a hard stratum of earth is found, the knife may be detached and a smaller hole bored through said stratum, the knife being afterward attached and the hole reamed out or enlarged to the desired size. A combination, with the stem, of the rigid section of the worm, an angular bit, and a sliding worm are the features upon which a patent has been obtained.

RULING PEN.—Elliot Ingram, of Springfield, Mass.—This invention has for its object to improve the construction of ruling pens, in such a way that when different colored inks are used the inks may not become mixed while the ruling machine is being used; and it consists in the combination of a guard or shield with the pen, as hereinafter more fully described. The pens are constructed with grooves to conduct the ink to the paper in the ordinary manner. With the ordinary pens, the ink is liable to run back along the shank to the clamps, and along the clamps to the next pen so that the different colored inks become mixed. To guard against this, a guard or shield is attached to the shank of the pens so as to prevent the possibility of the different colored inks becoming intermingled or mixed. The guard or shield projects upward and rearward, so as not to interfere with properly securing and operating the pens.

DROP LEAF ATTACHMENT FOR SEWING MACHINE TABLES.—Evelyn. F. French, of New York city.—This invention has for its object to provide a drop leaf, applicable to sewing machine and other tables of suitable kind, and nicely fitted to whichever table or kind of table it may be applied. The invention consists in the application, to the devices which fasten the leaf to the table, of a pair of hinged springs that insure the flush position of the leaf when swung up into a horizontal position.

MILK COOLER.—Charles A. Douglass, of Franklin, N. Y.—This invention consists of milk troughs within water troughs in gangs or series, preferably one above another, with water and milk discharge pipes and adjustable apparatus for regulating the hight of the water surrounding the milk troughs. A high, narrow, and long frame is adapted to support a series of water troughs, one above another. A milk trough in each water trough is supported above the latter to allow the water to surround the lower part. A discharging nozzle for each water pipe, with a short vertically adjustable tube, tightly fitting the nozzle and extending above the bottom so that the water that escapes must pass through it from the upper end, is adjusted higher or lower and will vary the hight of the water accordingly. Branch water escape pipes lead into a main pipe which conveys the water away. The discharge nozzles of the milk troughs extend down into bushings screwed up through the bottoms of the water troughs water tight and fitting the nozzles so as to prevent leakage around them. Both the water and milk branch pipes are provided with funnels at the upper ends, to insure the receiving of the water while allowing the nozzles to be removed and reapplied frequently as the troughs must be frequently taken down to be cleaned. This is claimed to be a simple and efficient cooling apparatus for holding milk to obtain the cream.

POTATO DIGGER.—William W. Speer, of Pittsburgh, Pa.—This is an improved machine for digging potatoes and separating them from the soil with which they are raised, which consists in the construction and combination of arms pivoted or hinged to a shaft and biturcated or slotted to receive the cranks of another shaft, and also in adjustable bent bars in combination with the frame, crank shaft, slotted arms, shaft, shovel, and axle.

FOLDING TABLE.—Alfred C. Ballard, of Winooski, Vt.—This invention has for its object to so arrange an ordinary or any drop leaf table that it can be folded into a small space for convenient transportation; and consists, principally, in the application of drop leaves, which can be folded under the box or frame of the table top, and in their combination with folding legs. In this manner, the upper part of the table can be conveniently folded into quite a small space. The legs of the table are pivoted within the box in such manner that they can be folded into the same. When they are folded together, and the leaves also folded against and under the box, the entire table will be no larger than the box with the thickness of the leaves added to its width and depth. When the legs are swung down for supporting the table, they are held in place by means of suitable hooks or catches. The drop leaves, when extended, are supported on suitable pivoted or hinged brackets or bars

CAR BRAKE.—George H. Reynolds, of Parsons, Kansas.—This car brake is so constructed that the weight of the caboose or rear car of the train may be employed to apply the brakes to all the other cars of the train. It consists in a shaft with the bumper head chain wound around it, with other mechanism and chains, rods, etc., combined with the brake mechanism of a train of cars in such a way that the brakes will be applied to all the cars of the train with the full force required to draw the rear car. The force required to draw the rear car may be increased by applying the brakes to the said rear car in the ordinary manner. This device is designed especially for freight trains, but may be applied to other trains, if desired.

DEVICE FOR LOCKING NUTS.—Samuel B. Lowe, of Chattanooga, Tenn.—Plates having end slots and lips to lock the two end nuts, and also two central apertures to receive the two middle nuts which hold a fish plate to its rail, are not new; but this construction compels these lock plates to be rigid and unadjustable, while by employing a separate and independent plate for every two nuts each becomes adjustable, and it is no longer required that the middle nuts should be always placed in one arbitrary position. A plate having only a long slot and two long arms at each end, to adapt it to be applied adjustably to a pair of nuts, constitutes the improvement.

TROLLING HOOK.—George Sinclair, of Chicago, Ill., assignor to himself and Charles E. Sinclair, of same place.—This invention relates to a new method of attaching fish hooks to spoons, propeller wheels, and other styles of trolling hooks; and consists in forming, on the spoons or wheels, wedge shaped sockets in which the eyes at the end of the hooks are securely held. The advantages of this mode of fastening are, first, that the hook can be removed when worn or useless and replaced without difficulty; and that, moreover, a stronger connection is obtained than by the ordinary method of soldering.

STOP MOTION FOR DRAWING FRAMES.—Daniel W. Hayden, of Wauregan, Conn.—This invention consists of a combination, with the drop catch lever and trumpet and the stop wheel heretofore used for throwing off the belt for stopping the machine when the "end" or "sliver" breaks, of a weighted catch lever arranged in such manner that it holds the trumpet guide for the sliver in the working position, and is thrown into contact with the stop wheel to stop the machine in case the trumpet is pulled down by knots or bunches on the sliver clogging it.

SELF SEALING PAIL.—Chas. A. Marshall, Cleveland, Ohio.—This invention consists in providing a pail (adapted to various uses but designed chiefly for transporting milk and other liquids) with a cover which may be tightly secured by means of a detachable screw hook connecting with a screw eye in the bottom of the pail. This means of securing the cover is easy to apply at well as cheap and safe, while it does not render the pail unadapted to use without it.

RAILROAD TRACK CLEANER.—Alexander Blakely, Fairfield, Iowa.—The invention consists in removing the sand which is spread in front of locomotive wheels to produce traction, by means of a brush arranged in rear of the hindmost drive wheel and rotated by said wheel. This brush is raised or lowered, and held to or away from the track by simple and convenient mechanism.

TOOL FOR CUTTING SHEETS OF WET OR PASTED PAPER, WOVEN FABRICS LEATHER, ZINC OR LEAD.—John F. Bright, Washington, D. C.—The invention consists in a new tool for cutting leather, woven fabrics, zinc or lead, with a rotary knife. It is provided with a gage and clamp by which it is enabled to cut with great accuracy and uniformity. It is adapted to be used as an independent tool or is readily attached to a bar, pitman or lever of any cutting machine. It was declared by the Patent Office to be entirely new in its principle of operation and is certainly a step forward in this class of invention.

DROPPING ATTACHMENT FOR HARVESTERS.—Byron Seneff, Chillicothe Ohio.—The invention consists in a peculiar mode of dropping the bundles of grain from an inclined slide, without scattering, of uniform size and with the straws even. The effect of this is to save much grain that is usually lost by scattering and by dropping from the bundle, as well as to enable it to thrashed with more facility and thoroughness.

SURFACE BLOW-OFF FOR MARINE BOILERS.—Benton C. Davis and John T. Hardester, Baltimore, Md.—The invention consists in effectively and economically discharging the scum from a marine boiler, by blowing steam and water from the centre of the water surface, and drawing to a common center, automatically, all of said scum by producing a vortex at that point.

HARVESTER.—George S. Grier, Milford, Del.—The invention consists in constructing and arranging rake teeth upon endless carriers so that they will automatically fold when going under the platform and be erected as they ascend to the top. Its simplicity secures durability and cheapness of construction while its efficiency is unmistakable.

METAL FOR BRAKE SHOES FOR RAILWAY CARS, ETC.—Wm. McConway. Pittsburgh, Pa.—The patentee produces a very close grained, tough and durable brake shoe by suitable admixture of pig iron, malleable cast iron and steel. It has been practically tested and found to exceed the common shoe in durability as 20 to 1.

SEWING MACHINE.—Quinten M. Youngs, Utica, N. Y.—This invention consists in having the pulley, on the main shaft of a sewing machine, so arranged that it may be locked with the shaft to drive it in the ordinary operation of the machine, and unlocked to run loose and not work the machine when it is required to use the driving belt or the said pulley for working the bobbin winder, and thus avoid having to remove the work from the machine and readjust it again each time a bobbin is to be wound, besides saving the unnecessary running of the machine.

FANNING MILL.—John Drummond, Trenton, Mo.—This invention relates to improvements in fanning mills; and it consists in certain arrangements of the shoes holding the screws and apparatus for actuating them, calculated to work them more efficiently than they can be as at present arranged. An arrangement, with the shoe suspended in the peculiar manner, of a lever, bell crank, oscillating shaft, and the connecting rods therefor, for actuating the shoe in different directions, said lever and shaft being actuated by the fan shaft, are the features on which a patent has been issued.

MACHINE FOR DRYING PAPER, WADDING, ETC.—Elihu C. Wilson, Medway, Mass., assignor to himself and Edward Eaton, same place.—This invention consists in a long closed case, through which the bat is carried by an endless belt near the bottom, and into which air, either hot or cold, is blown above the bat and caused to impinge upon the upper wet surface in an evenly distributed way, and then escape at the opposite end, carrying off the moisture in an efficient manner. The size or paste used for stiffening the bats to adapt them for waddings, and which it is the particular object of this machine to dry, will be applied to the bat just previous to entering the case, the application being made in any approved way. This plan of drying is claimed to be much better than by the calender rollers, for in that case the wet side of the sheet is run upon the roller and the damp air necessarily forced through the bat to the outside. This destroys the crispness of the interiors of the mass, and thereby very greatly injures the quality of the goods. The improved plan of drying is applicable alike to drying paper, woven cloths, and the like.

STEAMBOAT CHIMNEY.—William J. Hamilton, Cairo, Ill.—The object of this invention is to provide suitable and convenient means for lowering and raising the top or upper sections of jointed steamboat chimneys. The apparatus is operated from the deck entirely. The device is designed to be attached to the chimneys of steamboats, for enabling them to pass under the bridges which frequently span navigable streams. Its advantages over any device for the same purpose now in use will, it is claimed, be readily understood and appreciated on inspection by all western steamboat men.

ELECTROMAGNETIC ANNUNCIATOR.—Charles E. Chinnock, of New York city, assignor to Edwin Holmes, manufacturer of burglar alarm telegraph appliances for houses, stores, etc., 7 Murray street, New York city.—This is an automatic indicator for electromagnetic alarm or call apparatus, and means for establishing currents through inaudible or other signals whenever the indicator is set in motion. It is intended for use in alarm apparatus to first indicate the locality at which the operating current was established and subsequently start the alarm, and is equally well applicable to hotel annunciators and similar apparatus for showing the number of rooms and calling the attendant. The numerous features of the invention are embraced in ten different claims upon which a patent has been issued.

CULINARY BOILERS.—Joseph Gibbs, Opelousas, La.—This invention consists in a boiler having a wide flange adapted for supporting it on the top of pots or saucepans of different sizes, so that the body of the boiler sets down on the pot or saucepan to be heated by the water boiled therein, with which boiler is combined a circular weight, adapted to rest on the top of the flange, and press it down upon the edge of the pot so hard as to prevent the escape of the steam from the pot as readily as it would without said weight.

FOLDING CHAIR.—Charles Marcher, New York city.—The object of this invention is to so construct a chair that it may be folded up to occupy but little space when it is not in use, or when packed for transportation or storing away. It is particularly useful for steamer and steamboat travelers. The back and the front leg pieces for each side of the chair are in one piece, and are pivoted to the rear legs. A track of metal, or other suitable material, is rigidly attached to each side of the seat. A metallic plate is rigidly attached to the upper ends of each of the rear legs, having a pin projecting inward, so as to bear and traverse on the track when the chair is folded up or extended for use. A shoulder forms a stop for the traverse pin when the chair is extended. The bottom is pivoted to the lower part of the back. The arms of the chair are pivoted to the seat. There are slots in the arms, and pins in the back on which slotted arms work as the chair is folded or extended.

COMBINED TABLE, SOFA, AND BED.—David Katzenstein, New York city.—This invention relates to a new article of furniture, which can be used as a table, sofa or chair, and bed, as occasion may require, and which, at the same time, is extremely simple in construction and convenient to handle. It consists in a new combination of three cushioned plates, of which one constitutes the table top, the sofa or chair back, and also part of the bed bottom, according to the position in which it is placed. The bed clothes can be kept in a drawer while the device is used as a table or sofa.

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DESIGNS PATENTED.

5,563.—CARPET.—Jonathan Crabtree, Philadelphia, Pa.
5,564 to 5,568.—CARPETS.—John Fisher, Enfield, Conn.
5,569 to 5,573.—OIL CLOTHS.—J. Hutchison, Newark, N. J.
5,574.—VEST CHAIN LOCK.—K. Kaufmann, New York city.
5,575 and 5,576.—OIL CLOTHS.—C. T. Meyer, Lyon's Farms, Elizabeth, N. J.
5,577 to 5,597.—CARPETS.—E. J. Ney, New York city.
5,598.—COOKING STOVE.—L. Rathbone, Albany, N. Y.
5,599.—JEWELRY BOX.—G. Schoenemann, New York city.
5,600 to 5,603.—CARPETS.—J. H. Smith, Enfield, Conn.
5,604 to 5,607.—CARPETS.—G. C. Wright, New York city.
5,608.—SUSPENSION EYELET.—G. W. Averell, New York city.
5,609.—KNIFE HANDLE.—M. Chapman, Greenfield, Mass.
5,610 to 5,618.—CARPETS.—Otto Heinigke, New York city.
5,619 to 5,623.—CARPETS.—H. Horan, Newark, N. J.
5,624 to 5,630.—CARPETS.—L. G. Malkin, New York city.
5,631.—CARPET.—W. Mallinson, Halifax, England.
5,632.—SODA FOUNTAIN.—G. F. Meacham, Newton, Mass.
5,633.—CARPET.—J. J. Patchett, Halifax, England.
5,634.—BIRD CAGE HOOK.—A. Wunder, New Haven, Conn.
5,635.—IRON BRACKET.—M. D. Jones, Boston, Mass.
5,636.—CARPET.—A. McCallum, Halifax, England.
5,637.—CEILING ORNAMENT.—G. Protin, New York city.
5,638.—CLOCK CASE.—P. B. Wight, New York city.

TRADE MARKS REGISTERED.

681 and 682.—BLEACHED LONG CLOTH.—Coffin & Altemus, Philadelphia, Pa.
683 to 687.—PHOTOGRAPH ALBUMS.—W. W. Harding, Philadelphia, Pa.
688.—CLOTH AND PAPER.—The Manhattan Cloth and Paper Company, New York city and Newark, N. J.
689 and 690.—SMOKING TOBACCO.—Winfree & Loyd, Lynchburg, Va.
691.—GIN.—Adams & Taylor, Boston, Mass.
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Applications have been duly filed, and are now pending, for the extension of the following Letters Patent. Hearings upon the respective applications are appointed for the days hereinafter mentioned:

20,356.—PROTRACTOR.—J. Lyman. May 8, 1872.
20,314.—VALVE COCK.—S. Adams. May 8, 1872.
20,341.—HORSESHOE MACHINE.—C. H. Perkins. May 15, 1872.
20,649.—VAPOR LAMP.—A. M. Mace. June 5, 1872.
20,692.—GRINDING MILL.—B. A. Beardsley. June 12, 1872.
20,837.—PRESSING STRAW BONNETS, ETC.—H. E. West. June 19, 1872.
20,411.—HARVESTER RAKE.—D. O. De Wolf. May 15, 1872.
20,447.—WHITEWASH BRUSH.—D. W. Shaw and W. McGraw. May 15, 1572
20,542.—STONE CRUSHER.—E. W. Blake. May 29, 1872.

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From February 9 to February 15, 1872, inclusive.

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HARVESTER.—L. Miller, Akron, Ohio.
METALLIC CANS, ETC.—H. W. Shepard and R. Seaman, New York city.
MOLDS, CORES, ETC.—W. Haineworth, Pittsburgh, Pa.
MOWER AND REAPER.—W. Sprague, South Kingstown, R. I.
POSTAL CARDS, ETC.—A. L. McCrea, Washington, D. C.
PROPELLING VESSELS.—W. Condell, New York city.
REFRIGERATOR.—J. Gravensline, Phila., Pa., D. W. C. Taylor, N. Y. city.
SEWING MACHINE.—Singer Sewing Machine Company, New York city.
STEAM GENERATOR, ETC.—A. G. Buzby, Philadelphia, Pa.

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