good receipt for dipping cast brass is: equal parts by measure of sulphuric and nitric acid and water. The work must be cleaned with a strong hot solution of soda in water. Dip but a few seconds, and rinse in clean hot water; dry in sawdust.

(20) W. H. W. writes: I have some wood work painted zinc white. Can I ebonize it, and if so, please tell me the process? A. The white paint must first be removed by spirits of turpentine or aqua ammonia, and the wood treated with a hot concentrated solution of alum until it is saturated, when it is brushed over with a logwood decoction thus prepared: one part of fine logwood is boiled with ten of water, and filtered through linen, after which it is evaporated down slowly to one half; to every quart of this add from ten to fifteen drops of a saturated solution of indigo perfectly neutral. After rubbing this into the wood it is treated with a saturated and filtered solution of verdigris in hot concentrated acetic acid. This whole treatment is repeated once or twice until the required intensity is obtained.

(21) C. M. C. writes: We have tried most of the different kinds of wood for building steam boxes, and find that about two years is as long as any of them will last. Being compelled to renew them so frequently places a heavy tax on the business. Iron is being used by some for this purpose with very little better success. Kindly give me your opinion on how brick would answer? Boxes require to be about seven feet each way, and no connection between apartments. A. Steam boxes used here are made of wood. If you should thoroughly paint the wood with coal tar, such as is used for iron work, you would no doubt add one or two years to its life. Brick would not do unless treated with coal tar, as the hot steam disintegrates brick and mortar very rapidly. The best and most durable steam boxes that we know of are staved and hooped like cisterns or tanks.

(22) O. R. R. writes: Is the green scum which collects upon the surface of stagnant water a vegetable growth? I have thought that it might be a species of alga, and that it is a means provided by nature for purifying the water. Am I right: if so what is its name? A. The green scum is composed of conferva, chiefly the microscopic globular alga, called Clathrocystra æruginosa.

(23) H. A. O. asks: I get forty pounds of beef per week, and wish to keep it fresh so that it will not spoil. Could I keep it by sinking a barrel in a spring of water, high enough to come above the water? How can I keep the barrel from becoming damp inside? How can I cover it tightly? A. Your plan is a good one in the absence of a supply of ice The barrel should be tight, and kept well down in the water. The meat may be suspended from hooks in the underside of the cover, the latter being well packed with woolen stuff so as to fit tightly and exclude the air. A little unslaked lime in the bottom of the barrel will absorb moisture. If the meat were immersed for a few minutes in Professor Barth's boroglyceride solution it might insure its keeping.

(24) W. J. P. requests a recipe for coloring brass black, something that will bear handling if possible. I have used a dip of butter of antimony, but the results obtained were not altogether satisfactory. Also mention a book containing such recipes? A. To color brass black try a weak solution of permanganate of potassium in very dilute nitric acid. "Spons' Receipts."

(25) A. S. L. asks: 1. How can the grease be prevented from collecting in the trap underneath the kitchen sink, thereby causing foul smells; and if not preventable, what is the most effective method to cleanse the trap? A. To prevent grease collecting in your sink pipe wash down the pipe every day with boiling hot water, which will melt the grease and carry it down to the sewer. If this does not entirely clear it, put some sal soda in the water and pour it slowly into the pipe boiling hot. 2. How can I take the stain from white marble occasioned by water in which flowers have been kept? A. For removing stains upon marble, wash the marble thoroughly with soda and warm water to remove any grease, and apply oxalic acid by laying a piece of white cotton cloth saturated upon the spots for a short time. If it destroys the polish you may repolish with oxide of tin and water applied with a cloth. If the stains are not deep rub the surface only with the oxalic acid and water upon a small piece of cloth quickly, and wash, to free the marble of acid. Then, to give it a gloss, rub with chalk wet with water.

(26) L. L. J. asks: 1. In extracting the coloring matter from a vegetable substance will the resulting liquid keep better whether the vegetable is boiled, or soaked in cold water and then subjected to pressure? A. The more matter dissolved the greater the tendency of the decoction to sour. 2. Also, please tell me of a good mordant for a black or dark brown vegetable dye, without any disagreeable smell or taste? The dye is to be used on vegetable matter, and the ordinary tannic acid adds a peculiar and unpleasant odor and taste. A. Nothing of this character is known. Copper or iron salts are generally used, but they are very perceptible to the taste.

(27) J. B. says: I have at my residence in the country just put in a water closet on the second floor, which, with my waste from the bath, I drain into a large well about twenty-five feet from the house. The said well is lined with dry stone, 18 inches thick, to within 4 feet of the surface, the 4 feet laid in mortar, and covered with 2 inch pine plank bedded in cement on the wall, joints calked, beside being firmly spiked to two pieces heavy timber crossing the well and built in the wall, making it quite hermetical, I think. Now, what I desire to know is, would it be proper to make a small hole in the cover to permit any gas or foul air generated therein to escape, and would it (if it did escape), not be offensive being so near the house, or would not such an opening have a tendency to drive the foul air or gas toward the water-closet above it? In short, which do you suggest as the better plan, to keep the well hermetically sealed, or make a hole in the same? A. If your house pipes are properly arranged there will be no driving back of foul air, whether you have an opening in the top of the cesspool or not. But such a receptacle as you describe is a bad thing to have near any dwelling, because by leakage into the adjacent ground it is all the time breeding a poisonous atmosphere. The opening you propose will not help the matter. If you are obliged to have a cesspool, then it should be made absolutely tight, like a bottle, so that there can never be leakage into the earth; it should be ventilated by a liberal pipe, leading to the top of your house; the contents should be removed by pump whenever required, and carted away. In addition to this your house pipes should be trapped and should be ventilated by pipes leading above the roof.

(28) T. E. H. asks: Please inform me of a good and simple way of cleaning and recoloring the barrels and other metal parts of a double barrel shot gun which are quite rusty? Would it be best to color or nickelplate the small parts? A. Take the barrels from the stock and put them in clean cold water free from gritty matters. Attach the brush to the washing rod, and get out all adhering powder and residues; next take tow and wash until the barrels are quite clean. If the parts have rusted it will be necessary to use a little emery flour. Dry the barrels with clean cotton rags, rubbing until the metal feels warm. Plug the ports and muzzles securely, then cleanse the outside parts with a strong alcoholic solution of caustic potash, aided, if necessary, with a little emery flour and a soft rag. Rinse thoroughly in water, dry thoroughly, warm, and while warm rub over every part with the following preparation: pure (dry) zinc chloride 1 oz.; nitrate of antimony ¼ oz.; olive oil 2 oz.; well rubbed down into a smooth uniform paste. After half an hour's exposure, rub off excess of this paste and polish with clean soft rags. In warming the metal avoid overheating it so as to injure the temper. Guns look nicely when properly electroplated with nickel, but ordinarily the coating is not very serviceable.

(29) E. G. S. asks: What are the difficulties attending the invention and use of a steam road carriage for common roads? A. The principal difficulty is to so "hang" the engine and boiler that the carriage may run in any direction or over obstacles, without affecting the joint and machinery connections. You would get much information by reading up the English experience with steam carriages.

(30) W. W. C. asks: 1. What the component parts are of the black paint used for school black boards? A. The following composition is recommended for black boards: shellac varnish, ½ gallon; lamp black, 5 oz.; powdered iron ore or emery in fine powder, 3 oz. If too thick thin down with alcohol. Give the wood three coats of the composition, allowing each to dry before putting on the next. The first coat may be of shellac and lamp black alone. 2. How can I mix a good glossy and durable green or red paint for wagons? A. Better lay on the color in oil and varnish over it. Vermilion or chrome green are good colors. You can purchase the colors ready ground in oil much more cheaply than you could mix them yourself. To obtain a smooth, glossy, or carriage finish apply several coats of the paint; let each dry thoroughly, then rub them down very smooth with fine pumice stone moistened with water, and finally lay on one or more coats of good copal varnish.

(31) D. C. asks: How can I make nitrate of copper, or where I can procure it? A. Some clean turnings of pure copper are placed in a glass or porcelain vessel, and nitric acid diluted, one part of acid to three of water poured upon it; the mixture is set aside out of doors to avoid the poisonous fumes evolved, and when the copper has entirely dissolved the solution is evaporated down in a porcelain dish until it is dry. The green salt thus obtained is the nitrate of copper. It is very corrosive to the skin and must be carefully handled. You can procure nitrate of copper from any large drug house.

(32) W. E. D. writes: Having read a recipe for making a black ink from nigrosine, I resolved to try it, but find that the ink will smear if accidentally rubbed by the hand, especially if the hand is moist. Would you please inform me how to obviate the difficulty? A Try the following: a concentrated solution of borax 1 part; shellac 4 parts; boiled together and mixed with sufficient nigrosine to give the requisite color.

(33) E. H. R. asks: How can I test amber beads for their purity? A. A small portion of oleic acid is dropped upon the lump and gently warmed. If the amber is spurious it will dissolve; or if adulterated, will be more or less reduced in size.

(34) J. G. asks how to make a cement that will be as hard as stone when dry, and which will adhere firmly to wood. A. Try the following receipt: Melt 1 oz. resin and 1 oz. of pure yellow wax in an iron pan, and thoroughly stir in 1 oz. of Venetian red, until a perfect mixture is formed, which is used while hot. When cold it is as hard as stone; or if the color and heating are objections, use a solution of soluble glass mixed with some quicklime.

(35) B. R. H. asks: Will you please give us receipts for canning sugar corn and tomatoes? A. To can tomatoes select well-ripened perfect fruit; clean, scald, and remove the skins and pack in the cans. It is preferred by many to remove at least one-third of the fluid portion of the fruit before packing. Put on the covers and immerse the cans in boiling water for from an hour to one and one-half hours. When taken out open a small vent (preferably not larger than a pin hole) in the head of each cover, and as soon as the confined air or gases have escaped seal up again and put the cans aside. In the course of a week examine the cans to see if they are tight. Corn is canned in a similar manner, but requires much longer heating to cure it properly: six hours' exposure is frequently required. If the water bath contains a solution of salt or chloride of calcium instead of pure water, the curing operation is facilitated and the curing more effectual. If not properly cured such goods will not keep, and the cans are apt to burst, by reason of the gases disengaged in the process of fermentation or decay. Care must therefore be taken to avoid accident in storing the cans.

(36) C. F. T. writes: 1. Sponge is porous and absorbs water and is increased in weight thereby. Does sponge absorb gas, such as oxygen or hydrogen? Would it become heavier or lighter by so doing? A. If the sponge is compressed into small compass and then allowed to expand in a gas, the latter will rush in to fill the interspaces and pores, just as water does under similar circumstances; there is no absorption of gas in any other sense. Sponge inflated with air or gas is slightly heavier than when compressed. Hydrogen is much lighter than atmospheric air, so that a sponge inflated with that gas would weigh less than when filled with air. 2. What weight will a cubic foot of confined air support or prevent from sinking in water? A. Atmospheric air varies slightly in volume with changes of temperature and barometric pressure. At 60° Fahr. and 30 inches barometric pressure, dry air is 813·67 times lighter than pure water. A cubic foot of pure water under like conditions weighs about 62½ pounds, and a cubic foot of air about 1¼ ounces. The difference is the weight necessary to sink this volume of confined air in pure water. 3. What amount of confined air would prevent a human body (say one weighing about 150 pounds) from sinking in water? A. The specific gravity of the human body in life is nearly that of water. To support the head out of still water 100 cubic inches of air in a light envelope will suffice. A larger volume would be necessary in rough water.

(37) D. H. asks: Can you tell me the quickest method for tanning thin rawhide regardless of the quantity of the leather after it is tanned? A. Put the washed hide into milk of lime until the hair comes outeasily, then rinse, pull the hair out, and with a blunt knife remove the fatty integuments from the flesh side, and having cleaned the hair side, put the skin into a strong, warm decoction of extract of hemlock or oak bark, which keep in a warm place and strengthen every few days by fresh additions of bark extract, until it is found on cutting a trial slipof the skin that it has been tanned through. The more the skin is handled—taken out, rolled and rubbed, and put in again—the quicker and more uniform the tanning operation proceeds. Anything that tends to force the tannin into the skin hastens the reaction termed tanning.

(38) A. D. P. writes; I have occasion to make casts or moulds of plaster of paris from metal types, but am troubled with air bubbles, or picks as they are sometimes called. What can I do to avoid them? A. In the first place use the finest and purest plaster of Paris obtainable. When filling a mould, learn to beat up the requisite quantity of cream quickly, and with care to avoid making it too thick. In pouring this in, use a good camel's hair brush to displace air bubbles; a mere surface cover of this thin cream is all that is requisite. While doing this have ready the thicker plaster, of the consistence of light sirup, and fill up the mould at once. In about twenty minutes you can open the mould, if your plaster is pure and has been properly mixed. If you do not put too much oil on the type and have used your brush properly, you will find clear, sharp moulds.

(39) E. T. S. asks: 1. Can the gas (hydrogen) generated by immersing scrap zinc in acidulated water be ignited? A. If by "ignited" you mean inflamed, yes; it burns very readily in the air. 2. I have a small electric motor which I wished to convert into a generator of electricity; have made all connections as stated in SUPPLEMENT, No. 161, for making small dynamo, and although the armature revolved at a high rate, could get no current? Can you suggest where my mistake lies? A. There may be some defect in the machine or its connections. We are unable to judge from your brief statements. Attach the terminal wires to a galvanometer to ascertain if any current is developed. If not, put a battery in circuit, including galvanometer and machine. If no current passes, there is a break in the coils or a bad connection. If, on the contrary, the current passes while none is developed on operating the machine with no battery in circuit, it is very probable that the armature coils are short circuited, or cut out by a cross contact, supposing the machine to be properly constructed in all other respects. 3. Will you please state what chemicals are used to make oil and water unite? Usually caustic soda or caustic potash. Consult some elementary work on chemistry.

(40) J. T. E. writes: I wish to know what is best to use to take printer's ink out of silk without damaging the goods? A. Put the stained parts of the fabric into a quantity of benzine, then use a fine, rather stiff brush, with fresh benzine. Dry and rub bright with warm water and curd soap. The benzine will not injure the fabric or dye.

(41) J. Mc D. asks: 1. What is the amount of sulphuric acid per gallon of water generally used in removing scale from cast or wrought iron? A. About 10 per cent. 2. How can I cleanse a cask that has contained vinegar for several years, so that it can be used for other purposes? Can it be done by slaking lime in the cask, and allowing the lime water to remain in it some time? Have been informed that coal oil barrels are sometimes cleansed in that way? A. Old vinegar barrels become impregnated to such an extent with their acetous substances that it is next to impossible to render them fit for the storage of any other liquid. Fill the barrels with milk of lime, and let this remain in them for several months, then rinse out well with plenty of warm water, and steam them inside for half hour.

(42) H. H. C. writes. There is a "remedy for dypsomania" put upon the market here and extensively sold as a "solution of the double chloride of gold." It is very costly, some $9.00 per bottle, and chemists East, to whom specimens have been sent, declare that there is no gold in it. Will you please suggest a test for gold in this state (or in any combination) that could be used by a person tolerably well skilled in pharmacy, but who lays no claim to being an analytic chemist, and which would indicate to a certainty the presence or absence of the metal? A. On a clean porcelain plate put a drop each of pure hydrochloric acid and of the solution to be tested; mix them together and drop into the mixture a small crystal of pure stannous chloride. If gold is present, a dark, purplish color will at once be developed. Repeat with a drop of pure gold chloride for confirmation. The test is very delicate and conclusive.

[OFFICIAL.]

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FOR WHICH

Letters Patent of the United States were Granted in the Week Ending

October 10, 1882,

AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

A printed copy of the specification and drawing of any patent in the annexed list, also of any patent issued since 1866, will be furnished from this office for 25 cents. In ordering please state the number and date of the patent desired and remit to Munn & Co., 261 Broadway, corner of Warren Street, New York city. We also furnish copies of patents granted prior to 1866; but at increased cost, as the specifications not being printed, must be copied by hand.

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Malt extracts from the husks of brewer's mash, apparatus for expressing, H. R. Randall 265,702
Measure, tailor's, J. H. Parkhill 265,628
Meat vessel, J. J. Johnston 265,609
Mechanical movement, B. B. Powell 265,632
Medicinal preparation, G. Déclat 265,583
Mercury from sand, separator for separating, Wehrle & Unger 265,898
Metal, chill for chilling, W. Tuttle 265,646
Metal polishing composition, B. Wilson 265,905
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Mill. See Roller mill. Spice mill.
Mining apparatus, Bloss & White (r) 10,212
Mitten or glove, W. W. Whitaker 265,902
Mould. See Suppository mould.
Moulding machine, F. H. Sweet 265,887
Mop, T. I. Kennedy 265,828
Mop wringer, H. Taylor 265,889
Moth trap and tree protector, coddling, G. W. Thissell 265,718
Mouthpiece, F. J. Kaldenberg 265,613
Mowing machine, W. McCord 265,845
Music leaf turner, C. W. Hergenroeder 265,602
Muzzle, E. Parker 265,860
Nail plate feeder, J. F. Hammond 265 599
Name plate or sign, Kaufmann & Dorn 265,614
Oiler, C. W. Elliott 265,787
Ordnance, W. Palliser 265,934
Ore washer, A. M. de la Cerda 265,766
Packing case head, G. O. Manning 265,839
Packing, pipe joint, O. M. Loveridge 265,681
Pan. See Salt pan.
Pantograph, J. G. Braastad 265,744
Paper and envelope box, letter, H. F. Cakes 265,625
Paper bags, muslin paper for the manufacture of, T. Stewart 265,884
Paper, machine for staining and drying, A. Komp, 265,832
Paper perforator, J. B. Bray 265,743
Pawl and ratchet mechanism, M. Braun 265,745
Parer and corer, combined, W. E. Brock 265,748
Pegging machine, McKay & Fairfield 265,618
Pen, fountain, J. F. Franklin 265,795
Pen, marking, J. W. Stoakes 265,885
Percussion tape, I. M. Rose 265,874
Photographer's cooling slab, J. E. Beebe 265,563
Phototypography, H. Goodwin 265,669
Pipe. See Hose discharge pipe. Smoking pipe. Stove pipe.
Planter, corn, J. V. Mitchell 265,692
Planter, corn, D. A. Yoakam 265,911
Planters, automatic check row and drill attachment for corn, G. Marple 265,840
Plow, G. L. & J. Brunton 265,749
Plow, W. J. Davidson 265,763
Plow, iron foot, R. J. Best 265,566
Post. See Fence post.
Post hole digger, J. J. Johnston 265,825
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Powder puff, E. A. Bailey 265,559
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Printer's locking-up device, B. F. Curtis 265,762
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Pulverizer, soil, A. J. Cochran 265,917
Pulverizing machine, H. B. Feldmann 265,791
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Pump, P. E. Jay 265,607
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Pump bucket, L. M. Rich 265,869
Pump, mercurial air, C. H. Stearn 265,641
Pump rod adjuster for oil wells, D. L. Lewis 265,835
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Purse, A. M. Town 265,893
Quilting frame, J. B. Murphree 265,694
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Railway engine, electro magnetic, T. A. Edison 265,778
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Registers, adjustable actuator for, E. F. Osborne, 265,696
Registering lock, Dickerman & Powers 265,584
Regulator. See Electric machine regulator. Furnace regulator.
Revolving boiler for paper making, etc., G. F. Wilson 265,649
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Rocking and reclining chair, combined, A. G. Fuller 265,593
Roller mill, Marmon & Warrington 265,927
Rolling coupling pins, machine for, F. A. Iddings, 265,813
Rolling mill rolls, device for cooling, J. Altmeyer, 265,731
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Rule, board, E. Andrews 265,732
Salt pan, H. N. Hewlett 265,806
Sash cord guide, A. B. Tadlock 265,888
Saw clamp, T. Crispin 265,761
Saw sharpening tool, R. S. Munger 265,854
Sawing machine, band, H. Aylesbury 265,652
Scraper, door, J. J. Johnston 265,824
Screwdriver, J. Swan 265,712
Sediment trap, L. P. Hawes 265,600
Seed drill, P. Sinnhold 265,708
Separator. See Grain separator.
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Skillet, J. J. Johnston 265,611
Smoking pipe, tubular, W. Bushnell 265,571
Snatch block, T. R. Ferrall 265,588
Soldering handles on can tops, machine for, H. Miller 265,849
Spectacles, H. N. Carpenter 265,916
Spice mill, J. J. Johnston 265,819
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Stalls, releasing device for cattle, J. C. Germeyer, 265,797
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Steam boiler, D. I. Novikoff 265,857
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Stocking, W. H. Abel 265,553
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Stove attachment, cooking, S. G. Randall 265,634
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Suppository mould, J. L. Wiggin 265,904
Switch. See Telephone switch.
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Tag fastener, Phillips & St. John 265,631
Tapping mains, machine for, H. Mueller 265,624
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Telegraphic cables, grapnel for raising, Trott & Kingsford 265,720
Telegraphic recording instrument, S. V. Essick 265,789
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Theaters, proscenium opening for, D. C. Waugh 265,647
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Tile, decorative, S. Van Campen 265,721
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Tobacco cutter, H. C. Hall 265,799
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Toy box for exploding fulminate wafers, Lyon & Lockwood 265,616
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Traction engine, Hoag & Drew 265,809
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Truck, car, S. D. King (r) 10,216
Truck for moving harvesters, Calais & Barnes 265,574
Types, machine for cutting wooden, V. M. Moreau 265,623
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Valve gear, W. W. Lovell 265,632
Valve, piston, E. A. Wildt 265,727
Vapor burner, R. Falkenrath 265,586
Vehicle bow trimming, H. Higgin 265,807
Vehicle seat back, J. W. Anderson 265,555
Vehicle spring, J. Hutchins 265,812
Vehicle spring, J. W. Wetmore 265,899
Vehicle spring connection, P. Barry 265,914
Velocipede, H. C. Buddenberg 265,751
Velocipede, A. Vreeland 265,722
Ventilator, R. S. Read 265,636
Ventilator or chimney cap, J. H. Irwin 265,814
Vital heat alarm, W. Reissig 265,866
Wagon, L. B. Berkly 265,739
Wagon, dumping, J. M. Kimball 265,829
Wagon jack, M. Cahill 265,752
Wagon rack, J. Shafer 265,878
Wash bowl, stationary, W. Blackwood, Jr 265,653
Washer. See Ore washer.
Washing machine, C. Barber 265,734
Washing machine, Burtner & Bodley 265,570
Washing machine, J. J. Johnston 265,818
Washing machine, W. Myer 265,695
Washing machine, J. H. Woodbury 265,910
Watch regulator, A. Bitner 265,568
Watchman's electric register, G. W. Adams 265,912
Water closet tank or cistern, S. F. Sniffen 265,709
Water elevator, J. J. Hamilton 265,923
Water elevator, J. Patten 265,629
Water elevator, steam, E. W. Vanduzen 265,895
Water grate bar, M. L. Ritchie 265,871
Water meter and filter, R. C. Barrie 265,562
Water through siphon pipes, apparatus for raising, J. Patten 265,630
Water wheel, J. B. McCormick 265,689
Webermeters, maintaining temperature in, T. A. Edison 265,774
Weeding, pruning, and singling implement, D. Fletcher 265,591
Wells to flow without tubing above the packer, adapting oil, C. C. Conroy 265,582
Wheel. See Fifth wheel.
Window shade, L. L. Sawyer *et al* 265,875
Window shades to rollers, attaching, J. W. Marsh, 265,688
Wire, fastening for sections of, R. Faries 265,665
Woodworking machines, cutter carrier for, H. A. Holt 265,604

DESIGNS.

Carpet, W. L. Jacobs 13,332
Carpet, W. McCallum 13,333
Globe, J. J. Nichols 13,336
Lamp and vase, combined, W. S. McLewee 13,335
Lamp, hanging, W. S. McLewee 13,334
Photographic card, F. B. Clench 13,330
Shelf cover, H. Force 13,331

TRADE MARKS.

Bitters, H. D. Cook 9,719
Cheese, Mende Brothers 9,713
Cigarettes and cut tobacco, D. Gonzalez 9,712
Coffee, unground roasted, W. F. McLaughlin 9,715
Medicine for the cure of rheumatism, Rheumatine Manufacturing Company 9,717
Perfumery, J. B. F. Rigaud 9,716
Rings, fourteen carat gold, Dueber Watch Case Manufacturing Company 9,711
Rings, ten carat gold, Dueber Watch Case Manufacturing Company 9,710
Starch gloss, A. Maul 9,721
Tobacco for smoking and chewing, and cigars, cut, Globe Tobacco Company 9,720
Watch cases, eighteen carat gold, Dueber Watch Case Manufacturing Company 9,708
Watch cases, ten carat gold, Dueber Watch Case Manufacturing Company 9,709
Whisky, G. Simmonds 9,718
Wines and liquors, Dulany, Meyer & Co 9,714

English Patents Issued to Americans.

From September 22, 1882, to September 26, 1882, inclusive.

Carbon conductor for electric lamp, E. Weston, Newark, N. J.
Car wheel, G. W. Miltimore, Chicago, Ill.
Drying apparatus, R. S. Jennings, Baltimore, Md.
Electrical meter, T. A. Edison, Menlo Park, N. J.
Electro magnetic engraving machine, G. M. Guerrant, New York city.
Embroidering machine, J. A. Groebli, New York city.
Glucose, manufacture of, W. T. Jebb, Buffalo, N. Y.
Iron, freeing salts from, C. Semper, Philadelphia, Pa.
Middlings purifier, C. Brown, St. Louis, Mo.
Nut lock, L. Triplett, Jr., Mt. Jackson, Va.
Padlock, registering, R. G. Usher *et al.*, Boston, Mass.
Sewing machine, preventing noise of, J. B. Hain, Newark, O.
Sugar cane harvester, W. C. Dollens, *et al.*, Indianapolis, Ind.
Telephone transmitter, G. F. Milliken *et al.*, Boston, Mass.