Business and Lersonal.

The Charge for Insertion under this head is One Dollar a line for each insertion: about eight words to a line. Advertisements must be received at nublication office as early as Thursday morning to appearin next issue.

The best results are obtained by the Imp. Eureka Turbine Wheel and Barber's Pat.Pulverizing Mills. Send for descriptive pamphlets to Barber & Son, Allentown, Pa. Fuller & Stillman, Chemical Engineers and Assayers,

40 Broadway, New York, Catechism of the Locomotive, 625 pages, 250 engrav-

The most accurate, complete, and easily under- known stood book on the Locomotive. Price \$2.50. Send for Co., Philadelphia, Pa. a catalogue of railroad books. The Railroad Gazette, 73 Broadway, New York.

A party is wanted to manufacture, on royalty, a Combination Pick, patented here and in Europe. Address P. O Box 3374, New York city.

Munger's Constant Seated Valve.-Having tested these valves in our own worksand elsewhere, for more than a year, under long continued high pressure and other trying conditions, we can recommend it as being the only valve which under all circumstances, is tight and durable. We are prepared to negotiate for the manufacture of these valves on royalty.or for the sale of a part or the whole of the patent. Address Mnnger & Son, East River Conn.

The genuine Asbestos Roofing forms the lightest and most economical roof in use. It can be easily applied by any one. H. W Johns M'f'g Co., 87 Maiden Lane, New York, sole manufacturers

Pat. Steam Hoisting Mach'y. See illus, adv., p. 125. Golden Healing Ointment. See adv., page 141.

The Baker Blower runs the largest sand blast in the world. Wilbraham Bros., 2318 Frankford Ave., Phila., Pa. Elliott's Lace Cutter, 25 cts. 80 Market St., Chicago, Ill.

American Watches.—A reduced price list of over 100 styles of solid Gold and Silver Watches just issued by a reliable jeweler, which will be mailed free to any address by N $\,$ H. White, Newark, N. J.

Linen Hose.—All sizes, with or without couplers, in any quantity. Greene, Tweed & Co., 18 Park Pl., N. Y.

The American Standard Gauge and Tool Works of as heavy machine tools now in stock.

Magnets, Insulated Wire, etc. Catalogue free. Goodnow & Wightman, 176 Washington St., Boston, Mass

Inexhaustible Beds of Kaolin or Clay.-Wanted experienced pottery men to take an interest in the white, pink, and yellow kaolin beds. Digging and shipping on cars will cost 50 cents per ton. M. J. Dobschutz, Belleville, Ill., Agent.

Forsaith & Co., Manchester, N. H., & 213 Center St., N. Bolt Forging Machines, Power Hammers, Comb'd Hand Fire Eng. & Hose Carriages, New & 2d hand Machinery Send stamp for illus, cat. State just what you want,

The Electric Light in its Practical Application. By P. Higgs, Numerous Illustrations. \$3.50. Mail free. E. & F. N. Spon, 446 Broome St., N. Y.

Wright's Patent Steam Engine, with automatic cutoff. The best engine made. For prices, address William Wright, Manufacturer, Newburgh, N. Y.

For Solid Wrought Iron Beams, etc., see advertise ment. Address Union Iron Mills, Pittsburgh, Pa., for

H. Prentiss & Co., 14 Dey St., New York, Manufs. Taps, Dies, Screw Plates, Reamers, etc. Send for list. The Horton Lathe Chucks; prices reduced 30 per cent.

Address The E. Horton & Son Co., Windsor Locks, Conn. Presses, Dies, and Tools for working Sheet Metal, etc. Fruit & other can tools. Bliss & Williams, B'klyn, N. Y. Linen Hose.—Sizes: 11/2 in., 20c.; 2 in., 25c; 21/2 in., 29c. per foot, subject to large discount. For price lists of all sizes, also rubber lined linen hose, address Eureka

Fire Hose Company, No. 13 Barclay St., New York. Workshop Receipts for Manufacturers and Mechanics. Illustrated. \$2.00 E. & F. N. Spon, 446 Broome St., N. Y. Nickel Plating.-A white deposit guaranteed by using

ourmaterial. Condit, Hanson & Van Winkle, Newark, N.J. Hydraulic Presses and Jacks, new and second hand. Lathes and Machinery for Polishing and Buffing Metals. E. Lyon & Co., 470 Grand St., N. Y.

Diamond Planers. J. Dickinson, 64 Nassau St., N. Y. Eclipse Portable Engine. See illustrated adv., p. 126. Eagle Anvils, 9 cents per pound. Fully warranted.

Bradley's cushioned helve hammers. See illus. ad. p. 142. Band Saws a specialty. F. H. Clement, Rochester, N.Y.

Sheet Metal Presses, Ferracute Co., Bridgeton, N. J. Split Pulleys at low prices, and of same strength and appearance as Whole Pulleys. Yocom & Son's Shafting Works, Drinker St., Philadelphia, Pa.

Noise-Quieting Nozzles for Locomotives and Steamboats. 50 different varieties, adapted to every class of engine. T. Shaw, 915 Ridge Avenue, Philadelphia, Pa. Stave. Barrel. Keg. and Hogshead Machinery a spe-

cialty, by E. & B. Holmes, Buffalo, N. Y. Caution,-Our name is stamped in full on all our best Standard Belting, Packing, and Hose. Buy that only. The best is the cheapest. New York Belting and Packing Company, 37 and 38 Park Row, N. Y.

Ornamental Penman's Pocketbook of Alphabets. 32 plates, 20c. Mail free. E. & F. N. Spon, 446 Broome St.,

New 8½ foot Boring and Turning Mill for sale cheap. A first class tool. Hilles & Jones, Wilmington, Del.

Sawyer's Own Book, Illustrated. Over 100 pages of valuable information. How to straighten saws, etc. Sent free by mail to any part of the world. Send your full address to Emerson, Smith & Co., Beaver Falls, Pa.

Best Turkey Emery in bbls., kegs, and cases. Special rates for large quantities. Greene, Tweed & Co., N. Y. Shafting, Pulleys, and Hangers. Nadig & Bro., Allen-

\$250 Horizontal Engine, 20 horse power. See illustrated advertisement, page 61.

For Sale.-Very low for cash, Engine Lathe, in good order, made by New Haven Mfg. Co. 30 inches swing; will turn 12 feet. Apply to Noble & Hall, Erie, Pa.

Milling, Profiling, Cam Cutting, Revolving Head Screw achines. Pratt & Whitney Co., Hartford, Conn

Hydraulic Cylinders, Wheels, and Pinions, Machinery Castings; all kinds; strong and durable, and easily worked. Tensile strength not less than \$5,000 lbs, to square in, Pittsburgh Steel Casting Co., Pittsburgh, Pa.

Wood-working Machinery, Waymouth Lathes. Specialty, Wardwell Patent Saw Bench; it has no equal. . Improved Patent Planers. Elevators: Dowel Machines, Rollstone Machine Company, Fitchburg, Mass

Tight and Slack Barrel machinery a specialty. John Greenwood & Co., Rochester, N. Y. See illus'd adv. p. 30.

The new "Otto" Silent Gas Engine is simple in construction, easy of management, and the cheapest motor known for intermittent work, Schleicher, Schumm &

Machines for cutting and threading wrought iron pipe a specialty. D. Saunders' Sons, Yonkers, N. Y.

Steam Engines, Automatic and Slide Valve; also Boilers, Woodbury, Booth & Pryor, Rochester, N. Y. See illustrated advertisement, page 29.

Wanted.—Responsible party to build and introduce Thomas' Patent Steam Wheel. Monopoly to right party. Write for description and particulars, to J. C. Thomas, Carlinville, Ill.

NEW BOOKS AND PUBLICATIONS,

DIGEST OF SEEDING MACHINES AND IMPLE-MENTS PATENTED IN THE UNITED STATES FROM THE YEAR 1800 to January, 1879. Compiled and published by James T. Allen, United States Patent Office, Washington, D. C. Quarto, pp. 1,326. Price

By permission of the Commissioner of Patents, Mr. Allen has made, with great care and labor, a thorough digest of all the American patents on seeding machines and implements granted to the beginning of the current year. It embraces nearly 4,000 patents, the drawings copied by photo-lithography, the claims given in full, and also brief descriptions of the inventions in such cases as seem likely to be of service. To facilitate examinations the patents have been arranged chronologically under the official classification of thirty-four subdivisions, and the whole work is so indexed that the drawing or claim of any patent may be found by name, Philadelphia has consolidated with the Betts Machine Company of Wilmington, Del Standard gauges as well number, or date. The advantage of such a work to inventors, manufacturers, patent attorneys, and libraries goes without telling.



HINTS TO CORRESPONDENTS.

No attention will be paid to communications unless accompanied with the full name and address of the writer.

Names and addresses of correspondents will not be

(1) R. F. B. asks: 1. What is the relative electro-motive force of the gravity battery as compared with the Smee and Bunson batteries? A. The electromotive force of the gravity battery is 1.079 volt; Smee's, when not in action, 1090 volt; when in action, 0482 bread as nourishing as a pound of home made? What volt; Bunsen's chromic acid, 2.028 volts. 2. Can it be used successfully and economically in electro-plating? A. Yes. 3. How many cells are necessary, and how much zinc surface? A. Use a zinc surface equivalent to the surface to be plated. 4. How often should the zincs be amalgamated in a gravity battery constantly in use? A. The zincs in a gravity battery are never amalgamated. 5. At what temperature (Fah.) should rubber hand stamps be vulcanized, and how long continued in the heat? A. The temperature will vary with the percentage of sulphur incorporated with the rubber. As the rubber is usually prepared it will require at least 2hours at a temperature of from 250° to 275° Fah. (85 to 100 lb, pressure). See pp. 48 and 105, Vol. 39, Sci-

(2) J. C. W. writes: In answer to query No. 12, in the Scientific American for May 31, 1879, you suggest that F. R. D. may use weak solution of ammonia for removing logwood stains from the hands. I would respectfully offer the following as more effectual and speedy, and will also answer the purpose of removing nearly all organic colors, not only from the skin, but ance of a line, 114 miles long, of No. 16 galvanized iron ing nearly an organic colors, not only from the skin, but wire? A. 104 ohms, 2. What and how much wire where I am wrong in making the Japan ink after receipt sulphite or hyposulphite of soda by dissolving either of should I put in each spool of an electro-magnet to proin the Supplement. No. 157? I have followed the receipt. sulphite or hyposulphite of soda, by dissolving either of Solid Emery Vulcanite Wheels—The Solid Original these salts in water to saturation. I think the sulphite duce this same resistance? A. About 500 feet of No. Emery Wheel - other kinds imitations and inferior. preferable, as the hyposulphite deposits sulphur in the course of the process, which is not always to be desired. This solution may be kept ready for use. Label it No. 1 Prepare a solution of permanganate of potassium in water, using one part of the salt to about one hundred parts of water. Itdoes not keep perfectly well; but as long as it is of a deep purple color it is good. Label it No. 2. Next procure a bottle of ordinary or commercian muriatic acid, which label No. 3. In using this acid it may generally be diluted with from one to ten volumes of water, or if the stain is obstinate it may be used without dilution, and beyond the smarting sensation it produces on the hands no harm will result unless it is used excessively and not washed off soon. If the smarting is too severe it should be washed off at once. and a solution or small quantity of dry bicarbonate of sodium (cooking soda) applied to neutralize the acid, and ice, but that will last longer. A. For practical purthus converting it into a solution of common salt. Having these solutions—namely, No. 1, sulphite of sodium; No. 2, permanganate of potassium; No. 3, muriatic (hydrochloric) acid-they may be used alternately, without much regard to order, except that, as a general rule, No. residue found in my boilers which floats upon the water.

3 must be used last, and the process finished with water I should like to ascertain what it is. A. It consists

seem to be unhurt unless the acid is used strong and A. "The Indicator Diagram," by N. P. Burgh. suffered to remain in the fabric until it is dry. $\ddot{\mathbf{I}}$ have never known the skin to be injured beyond the temporary stinging above mentioned. Ink stains and iron rust will succumb to these agents if properly managed. As a matter of caution they should not be used on such colored goods as are wished to retain their colors. The bleaching agent is what is ordinarily known as sulphurous acid, and will be recognized by the familiar odor of burning sulphur or matches with sulphur tips. This odor escapes from the hands rapidly, and in this respect the process is far preferable to any in which is employed. [We have found the use of such reagents seldom necessary; good soap and plenty of water, aided occasionally introduced. The heating must be conby a little pumice stone, will remove most stains from tinued until the greater part of the water has been exthe hands. When these fail the substances recommended will often prove serviceable; but a small quantity of common bleaching powder, followed by water move copying ink stains from the hands? A. Use amand a little antichlore (sodium hyposulphite), to destroy any odor occasioned by the former, will generally prove more effectual. For obstinate iron or ink stains, dilute hydrochloric acid should, of course, be used instead.]

freezing ice cream. A. The freezing point of salt made by Mr. David Kirkaldy, of London, to ascertain water issomewhat lower than that of pure water; hence the tensile strength and resistance to torsion of wire salt causes the rapid liquefaction of ice. A given quan- made of various materials: tity of ice in melting absorbs a certain amount of heat, and if the liquefaction is accelerated by salt this amount of heat is absorbed in a space of time proportionately less. 2. What is the process of bronzing any article, such as a gun barrel? A. Mix powdered chloride of antimony to a thin cream with olive oil (by trituration), and add a few drops of nitric acid. Spread this uniformly over the warmed iron, and let it remain until the proper color is developed. The brushing and marking is done with the scratch brush and burnisher. Polish with a piece of smooth, hard wood (polishing wood), lacquer with thin alcoholic shellac, and polish again.

(4) D. D. asks: 1. Will a 12 foot double deck boiler steam better than a 14 foot one? A. We cannot answer this query without seeing the plans of the boiler. 2. What size of smoke stack do I require for a double deck boiler containing 84 4-inch tubes? A. 36 inches diameter, if your tubes are properly proportioned to the grate.

(5) E. J. D. asks for recipe for making tar twists, and 5 stood from 11/2 to 4 twists. varnish. I have tried to mix the beazine and tar both hot and cold, but have always failed on account of the tar thickening up and curdling. A. The curdling is due the diameter of cylinder, length of stroke, absolute steam chiefly to the presence of moisture. Heat it in an iron pressure-with valves wide open-are given, the stroke pot to boiling for 7 or 8 hours, add say 10 per cent of to be horizontal and the friction supposed to be zero. boiled oil, and, when nearly cold, reduce with the solvent.

we renew our request that correspondents, in referring to former answers or articles, will be kind enough to name the date of the paper and the page, or the number composition to put on it to stop the leaks and make the (6) G. L. writes: I have a shed with quite name the date of the paper and the page, or the number of the question.

Correspondents whose inquiries do not appear after a reasonable time should repeat them.

Personal character, and not of general interest, should remit from \$1\$ to \$5, according to the subject, as we cannot be expected to spend time and labor to obtain such information without remuneration.

Any numbers of the Scientific American Supplement of the Scientific American Supplement referred to in these columns may be had at this office. Price 10 cents each. composition to put on it to stop the leaks and make the is best for a permanent magnet? A. A low grade of coated with melted asphaltum, and, while this is soft, † In what proportion by weight is the powdered carbon

liquefled ammonia are commonly employed. See "Ice and Ice Making Machines," Scientific American Sup-PLEMENTS, Nos. 85 and 91, also Scientific American, pp. 159 and 387, Vol. 38, and 95, 335 and 168, Vol. 37.

(8) W. M. H. asks: Is a pound of baker's is the best test to discover whether corn starch intended for food has been adulterated? A. Usually the difference in this respect is not great; in many cases the former is to be preferred. The corn starch found in our markets is 90,000 times. Superficial magnification equals the square usually quite free from adulteration. No single test of linear magnification. would suffice to detect the foreign substance which may be present. You would require the assistance of an analyst.

(9) J. R. L. asks: 1. Has granite ware proved safe for cooking utensils? A. Yes, when properly made. 2. Is it likely to be superseded by the new mode of treating iron vessels with superheated steam, noticed lately by you, whereby the liability to rust is obviated? A. Probably not. 3. Is annealed glass ware in the market? If not, why not? Have seen nails driven with a hardened glass chimney; but beyond this know of no ware of hardened glass on sale? A. Yes, of certain species of Pyrethrum-Pyrethrum carneum, but the manufacture is chiefly confined to lamp chimneys and similar articles.

(10) S. V. H. asks: 1. What is the resist-34. 3. Would not a magnet of still higher resistance work still better on this line with a given battery? A. No, the resistance in your instrument and in the line should be equal. 4. At the end of a line I run a wire underground to a well 30 feet from house, in which well I hang a plate of galvanized iron. Should the underground wire be insulated? A. No. 5. A friend and myself made a thermostat of brass and type metal. On plaster of Paris in liquid state, remain free from rust heating, the type metal expands the most apparatholes, or show signs of weakness-it of course being ently, as it forces the bar to bend towards the brass, understood the box will have a tight cover on, and the And yet if I understand aright, brass expands much more than type metal in a given variation of tempera- and lime in it? A. Soft water and ordinary plaster will ture. A. The expansion of type metal by heat is greater than that of brass,

(11) J. H. W. M. asks for a first class receipt for a freezing mixture, something similar to salt solution, acid, or composition, that will remove leading poses the mixture of salt and ice is the cheapest and can I remove rustfrom the inside of a gun barrel? A. best. See p. 107 (17), Vol. 38, Scientific American.

residue found in my boilers which floats upon the water.

applied until the acid is washed away. Nos. 1 and 3 chiefly of silica, silicate of alumina, and lime carbonate, are in most cases sufficient; but should No. 2 be required | with a small quantity of carbonaceous matters. Much it should be followed by both Nos. 1 and 3, always finish- of this would be removed by the use of a feed water ing with water. Silk and woolen goods will not stand heater. 2. Is there any work which treats fully on the long treatment with these chemicals. Cotton and linen use of the steam engine indicator, and what is it called?

> (13) D. S. S. asks: Could you give the name of anything that will remove the stain in a Brussels carpet made by a purple aniline ink? A. Have you tried alcohol and hot water? It will be difficult to remove the stain completely without injuring the pattern.

(14) M. L. asks (1) for a receipt for making best printer's composition rollers. A. Soak 1 lb. of fine glue in enough cold soft water for 8 hours. Then heat it in a water bath until it is well dissolved, and stir in 1 lb. of hot concentrated glycerine. Molasses is somechlorine with its disagreeable and more persistent odor times substituted in part for the glycerine, and resin soap and small quantities of oil and earthy matters are pelled, when the composition is ready for casting in copper moulds, oiled and warmed. 2. What will remonia water, muriatic acid, and plenty of water alternately, assisted by pumice stone if necessary.

(15) R. E. G. asks: What is the relative strength of steel, iron, brass, and copper wire? A. The (3) A. B. T. asks (1) why salt is used in following table gives the result of recent experiments

	I unimg sure	ss per sq. mcu.
Specimens of wire	Hard.	Annealed.
tested.	Pounds.	Pounds.
Copper	63,122	37,002
Brass	81,156	51,550
Charcoal iron	65.834	46.160
Coke iron	64 391	61,294
Steel	190 076	74,637
Dhoanhan bronne M. 1	150,510	
Phosphor bronze, No. 1	109,010	58,853
No.2		64,569
No. 5	139,141	54,111
" No. 4	120,900	53,381
TT145	xten- No.	of trainta in
untimate e		
Specimens of sion in pe	r ct.	inches.
Specimens of sion in perwire tested. Annealed	r ct.	inches. Annealed.
Specimens of wire tested. Annealer Copper 34·1	r ct. 1 1. Hard 86'8	5 inches. l. Annealed. 3 96
Specimens of sion in pe wire tested. Annealer Copper	er ct. 2 1. Hard 86'8 14'7	5 inches. l. Annealed. 3 96 57
Specimens of wire tested. Annealer Copper 34·1	er ct. 8 1. Hard 86'8 14'7 48	5 inches. l. Annealed. 3 96
Specimens of wire tested. Annealee Copper	er ct. 2 1. Hard 86'8 14'7	5 inches. l. Annealed. 3 96 57
Specimens of wire tested. Annealec Copper	er ct. 8 1. Hard 86'8 14'7 48	5 inches. 1. Annealed. 3 96 57 87 44
Specimens of wire tested	er ct	5 inches. 1. Annealed. 3 96 57 87 44 79
Specimens of wire tested	er ct 18	5 inches. 1. Annealed. 3 96 57 87 44 79 6 66
Specimens of wire tested. Annealec Copper. .34'1 Brass .36'5 Charcoal iron .28 Coke iron .17 Steel .10'9 Phosphor bronze No. 1. 48'6 No. 2. 42'8'	er et	5 inches. 1. Annealed. 3 96 57 87 44 79 66 60
Specimens of wire tested	r ct	5 inches. 1. Annealed. 3 96 5 57 87 44 79 6 66 6 60 53
Specimens of wire tested. Annealec Copper. .34'1 Brass .36'5 Charcoal iron .28 Coke iron .17 Steel .10'9 Phosphor bronze No. 1. 48'6 No. 2. 42'8'	r ct	5 inches. 1. Annealed. 3 96 57 87 44 79 66 60

(16) J. E. L. asks for formula for number of strokes of (1) steam, (2) compressed air, engine when A. There is no formula for length of stroke, of any value, although some are given in published works. By a good engineer the length of stroke is determined by the character of the work to which it is to be applied.

(17) G. P. P. asks: 1. What kind of steel cast steel seems to answer best for this purpose. 2. and peroxide of manganese used in the porous vase of a Leclanche battery? A. About equal parts. 3. I have the impression that if a current of electricity be passed through chemically prepared paper, the paper will be turned blue; am I right? A. Yes. 4. How is the paper prepared, and what, and in what proportions, are the chemicals used? A. See p. 124 (24), current volume of Scientific American. 5. Is there any way of charging a Leyden jar directly from a galvanic battery? A. No; an induction coil must be used.

(18) G. D. writes: My friend sayshis micoscope magnifles 300 times. I say mine magnifles 300 diameters. Assuming that these claims are correct, which is the more powerful instrument? A. If your microscope magnifies 300 diameters, it is equivalent to

(19) W. S. P. asks: 1. What can I use on a marble imposing stone to harden it, so that it will not be so easily scratched? A. We know of no practical method of accomplishing this. 2. Is sulphur water injurious to steam boilers? A. Yes.

(20) J. K. T. writes: Please give botanical name of plant and commercial name of substance sold as "Persian insect powder"-I mean the powder used for destroying insects, etc. A. So-called " Persian insect powder consists of the dried and powdered flowers P. roseum, and P cinerariæ folium. The last named is usually distinguished from the others commercially as Dalmatian powder, and is much more energetic than the others

(21) M. A. M. writes: I wish to know in the Supplement, No. 1579 I have followed the receipt butafterusing it awhile it will corrode the pen and will not flow freely. A. Use more borax or add a small quantity of soda. 2. What is soluble Prussian blue? A. Soluble Prussian blue is a commercial article and is used for laundry blue.

(22) R. B. asks: How long will a box made of galvanized iron, No. 18 gauge, filled with calcined plaster of Paris have the usual amount of sulphuric acid have very little action on the metal. If sealed it would last indefinitely.

(23) H. T. S. asks: Do you know of any The lead cannot be removed by chemical means. Gun makers usually supply a tool for mechanically cleaning (12) T. E. C. writes: 1. I send sample of the bore. The rust may be removed by means of emery flour and oil applied on a cloth wound on this

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined, with the results stated:

D. A. R.—Chiefly an amethystine-quartz sand, of little value.—J. G. N.—It consists chiefly of feldspar and biotite, a variety of mica. Not valuable.

COMMUNICATIONS RECEIVED.

On Optical Delusion. By S. E. C., C. W. B. On the Optical Delusion. By J. P. McD. On Traveling Rocks. By N. P. S.

[OFFICIAL]

INDEX OF INVENTIONS

FOR WHICH

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

July 22, 1879.

AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

	١ .
Addressing machine, H. D. Farquharson	217,68
Air and steam engine, J. M. Whiting	217,75 217.83
Alarm lock, W. McAdams, Jr	
Animal clamping hook, J. Robertson	217,74
Axle box and journal, vehicle, J. A. Manning	. 217,69
Baling press. M. Loeser	. 217,80
Band cutter and fruit picker, wire, G. S. Curtis Barrel stand, J. Salter	. 217,74
Bedstead fastener, M. Krickl	, 217,67
Boiler furnace, Everhart & Kingsbury	. 217,78
Boiler furnace, steam, Mason & Loring Bolt lock, G Kator	. 217,69
Book, copy, H. W. Ellsworth	. 217,733
Boot and shoe, J. W. Winn Boot and shoe sole presser, T. J. & T. H. Gifford.	. 217.68
Bottle stopper, J. Annear Bow, E. S. Morton	217,76
Brake appar., fluid pressure, G. Westinghouse, Jr	. 217,836
Brakerelief valve, automatic, G. Westinghouse, Jr Brakes, piston diaphragm for power, G. Westing	
house, Jr.	. 217.837
Butter package, W. White Buttons from blood and other material manufac	. 217,839
ture of ornamental, W. F. Niles	. 217,70
Car coupling, C. Ahrenbeck	. 217,720
Car coupling, J. M. Dyer	. 217,846
Car coupling, W. W. Scott	. 217,821 . 217,75
Car wheel fenders, railway, C. E. Brown	. 217,676
Car wheel mould, W. Wilmington	. 217,84(. 217.746
Catheter, A. Shiland	217,711
Centrifugal machine, S. S. Hepworth Check hook, G. J. Letchworth	
Chill mould, J. Oliver	217,815
C urn, E. W. Bullard	. 217,742
Coffin, J. McCarthy	217,739
Condenser, steam engine, W. L. Church	. 217.829 . 217,845
Corset, J. D. Banfield	. 217,721
Cotton press, G. Cooper	217,776 217,827
Crib, folding, D. Walker	217,716
Cultivator, G. Moore	217,714
Dental vulcanizer, J. S. Campbell	. 217,728
Dental vulcanizer, J. S. Campbell Door check, A. Witte	217,762
Dental vulcanizer, J. S. Campbell Door check, A. Witte Ear muff, H. E. Bonham	217,762 217,768
Dental vulcanizer, J. S. Campbell	217,762 217,768 217,848 217,792
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle	217,762 217,768 217,848 217,792 217,677 217,731
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle	217,762 217,768 217,848 217,792 217,677 217,731
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers	217,762 217,768 217,848 217,792 217,677 217,731 217,807 217,825 217,707
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll.	217,762 217,768 217,848 217,792 217,677 217,731 217,807 217,825 217,707 217,778
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson	217,762 217,768 217,848 217,792 217,677 217,731 217,807 217,825 217,707 217,778 217,835 217,760
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry	217,762 217,768 217,848 217,792 217,677 217,731 217,807 217,707 217,778 217,760 217,760 217,801
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Rich-	217,762 217,768 217,848 217,792 217,677 217,731 217,807 217,778 217,778 217,778 217,7835 217,760 217,801
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muf, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or	217,762 217,768 217,848 217,792 217,677 217,731 217,807 217,825 217,778 217,835 217,760 217,801
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, G. C. Daboll Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters	217,762 217,768 217,768 217,767 217,677 217,731 217,807 217,707 217,782 217,707 217,780 217,760 217,801
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcn Fifth wheel, vehicle, J. Spreyer, Sr.	217,762 217,768 217,768 217,762 217,677 217,731 217,807 217,825 217,707 217,835 217,760 217,801 8,821 217,673 217,701 217,826
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.accu Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden	217,762 217,768 217,768 217,762 217,677 217,731 217,807 217,825 217,707 217,783 217,760 217,801 8,821 217,673 217,701 217,826 217,701
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Wilson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mc1.acc. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, W. H. Broden Firearm sight, G. O. Warfield. Filuting machine, G. Adreance	217,762 217,768 217,768 217,762 217,677 217,677 217,825 217,707 217,778 217,801 8,821 217,803 217,701 217,701 217,701 217,701 217,701 217,701 217,701 217,701 217,701 217,670
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcn Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, O. D. Warfield. Fluting machine, G. Adreance. Forge, emery wheel, and drill. P. B. Hillyer.	217,762 217,768 217,768 217,762 217,677 217,677 217,825 217,707 217,778 217,801 8,821 217,803 217,701 217,701 217,701 217,701 217,701 217,701 217,701 217,701 217,701 217,670
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eveglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl. arcu Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, W. H. Broden Firearm sight, W. B. Broden Firearm sight, O. D. Warfield Fluting machine, G. Adreance. Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd	217,769 217,768 217,788 217,677 217,731 217,807 217,825 217,760 217,801 8,821 217,763 217,761 217,806 217,701 217,806 217,701 217,806 217,701 217,705 217,705 217,705 217,705 217,705 217,705 217,705 217,705 217,705 217,705
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Wilson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing. G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcu. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, W. H. Broden Firearm sight, W. H. Broden Firearm sight, W. B. Broden Firearm sight, G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig	217,762 217,768 217,792 217,617 217,817 217,807 217,807 217,807 217,707 217,700 217,700 217,701
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.acc. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, O. D. Warfield Fluting machine, G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis	217,768 217,818 217,732 217,677 217,732 217,807 217,807 217,732 217,807 217,738 217,807 217,738 217,607 217,738 217,607 217,738 217,701 217,806 217,701 217,806 217,701 217,808 217,701 217,808 217,701 217,808 217,701 217,808 217,701 217,808 217,701 217,808 217,701 217,808 217,701 217,800 217,708
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Wilson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing. G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl. arce. Fifth wheel, vehicle, J. Spreyer, Sr Firearm sight, W. H. Broden Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore	217,762 217,768 217,792 217,617 217,817 217,807 217,807 217,807 217,707 217,700 217,70
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcn Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, O. D. Warfield Fluting machine, G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer. Glass pipe maker, J. B. Ford.	217,762 217,684 217,782 217,673 217,673 217,873 217,873 217,873 217,873 217,773 217,773 217,801 217,773 217,801 217,701 217,703 217,701 217,701 217,701 217,701 217,702 217,701 217,702 217,703 217,701 217,703
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arce. Fifth wheel, vehicle, J. Spreyer, Sr Firearm sight, W. H. Broden Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford.	217,762 217,768 217,732 217,617 217,817 217,807 217,807 217,807 217,707 217,700 217,70
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcn Fifth wheel, vehicle, J. Spreyer, Sr. Fifrearm sight, O. D. Warfield Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford. Globe, terrestrial, H. Allen. Glove, T. Munthe	217,762 217,684 217,684 217,673 217,677 217,872 217,872 217,872 217,872 217,772 217,773 217,872 217,801 217,673 217,701 217,702 217,701 217,702 217,701 217,702 217,702 217,703 217,704 217,705 217,707 217,705 217,707 217,705 217,707 217,707 217,707 217,708 217,707 217,707 217,707 217,707 217,707 217,707 217,707 217,708 217,707 217,707 217,707 217,707 217,707 217,707 217,707 217,708
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.acc. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, O. D. Warfield Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pige maker, J. B. Ford Globe, terrestrial, H. Allen. Glove, T. Munthe Glove, husking, H. W. Price. Grain binders, knot tier for, G. B. Morton.	217,762 217,768 217,768 217,732 217,677 217,875 217,875 217,875 217,702 217,703 217,801 217,801 217,601 217,601 217,702 217,703 217,701 217,802 217,701 217,600 217,704 217,704 217,705 217,705 217,707 217,806 217,707 217,806 217,707 217,806 217,707 217,806 217,707 217,806 217,707 217,708 217,709 217,70
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcn Fifth wheel, vehicle, J. Spreyer, Sr. Fifrearm sight, O. D. Warfield Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford. Globe, terrestrial, H. Allen. Glove, T. Munthe Glove, Musking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun wad, Budd & Ogden.	217,762 217,618 217,618 217,618 217,617 217,807 217,807 217,807 217,700 217,700 217,700 217,801 217,600 217,701 217,600 217,701 217,600 217,701 217,600 217,701 217,600 217,701 217,600 217,701 217,600 217,701 217,600 217,701 217,600 217,701 217,600 217,701 217,70
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arce. Fifth wheel, vehicle, J. Spreyer, Sr Firearm sight, W. H. Broden Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford. Globe, terrestrial, H. Allen. Glove, T. Munthe Glove, husking, H. W. Price. Grain binders, knot tier for, G. B. Morton.	217,762 217,768 217,768 217,732 217,677 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,774 217,670 217,774 217,775 217,775 217,775 217,775
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer Feathers, method and machine for shaving or splitting mill, T. Willson Farm gate, W. R. Kramer Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcn Fifth wheel, vehicle, J. Spreyer, Sr. Fiftearm sight, W. H. Broden Firearm sight, O. D. Warfield Flutting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford. Globe, terrestrial, H. Allen Glove, husking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun waid, Budd & Ogden Gun wiper, J. P. Simons. Hat sizing or fulling machine, R. Eickemeyer Hat sweat leather, G. H. Dimond.	217,768 217,819 217,678 217,789 217,677 217,807 217,807 217,807 217,807 217,708 8,821 217,603 217,701 217,806 217,701 217,705 217,701 217,705 217,701 217,705 217,701 217,705 217,701 217,705 217,701 217,705 217,701 217,705 217,701 217,705 217,701 217,702 217,701 217,702 217,703
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Elamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcr. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, O. D. Warfield. Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd. Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford Globe, terrestrial, H. Allen. Glove, T. Munthe Glove, husking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun wad, Budd & Ogden. Gun wiper, J. P. Simons Hat sizing or fulling machine, E. Eickemeyer. Hat sweat leather, G. H. Dimond. Hatchway door operating device, G. K. Bancroft.	217,762 217,768 217,792 217,677 217,875 217,875 217,875 217,875 217,707 217,705 217,801 217,801 217,701 217,701 217,701 217,702 217,701 217,701 217,704 217,705 217,704 217,704 217,704 217,705 217,706 217,704 217,704 217,705 217,704 217,704 217,705 217,704 217,705 217,704 217,705 217,704 217,705 217,70
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll Eyeglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcu Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, O. D. Warfield Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r) Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford Globe, terrestrial, H. Allen Glove, husking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r) Gun wiper, J. P. Simons Hat sizing or fulling machine, R. Eickemeyer Hat sweat leather, G. H. Dimond Hatchway door operating device, G. K. Bancroft. Hides, machine for treating raw, A. C. Krueger. Hinge and roller, gate, J. B. Bolinger.	217,762 217,762 217,762 217,672 217,815 217,817 217,825 217,731 217,825 217,730 217,73
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Elamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcr. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, O. D. Warfield. Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd. Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford. Globe, terrestrial, H. Allen. Glove, T. Munthe. Glove, T. Munthe. Glove, T. Munthe. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun wad, Budd & Ogden. Gun wiper, J. P. Simons Hat sizing or fulling machine, E. Eickemeyer. Hat sweat leather, G. H. Dimond. Hatchway door operating device, G. K. Bancroft. Hidges, machine for treating raw, A. C. Krueger. Hinge and roller, gate, J. B. Bolinger Horsesbee toe weight. A. Fischer	217,762 217,768 217,792 217,677 217,825 217,707 217,825 217,707 217,705 217,801 217,801 217,601 217,701 217,701 217,702 217,701 217,701 217,702 217,701 217,704 217,709 217,704 217,709 217,709 217,704 217,709 217,70
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.acc. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, O. D. Warfield. Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford Globe, terrestrial, H. Allen. Glove, T. Munthe. Glove, husking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun wad, Budd & Ogden Gun wiper, J. P. Simons Hat sizing or fulling machine, R. Eickemeyer Hat sweat leather, G. H. Dimond Hatchway door operating device, G. K. Bancroft. Hides, machine fortreating raw, A. C. Krueger. Hinge and roller, gate, J. B. Boilnger. Hot servers.	217,762 217,762 217,762 217,762 217,815 217,807 217,807 217,807 217,807 217,707 217,700 217,700 217,700 217,700 217,701 217,700 217,701 217,701 217,702 217,701 217,702 217,703 217,704 217,702 217,703 217,704 217,709 217,70
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eveglasses, G. C. Daboll Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.acc. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, O. D. Warfield Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford Globe, terrestrial, H. Allen Glove, T. Munthe Glove, husking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun wa'd, Budd & Ogden Gun wiper, J. P. Simons Hat sizing or fulling machine, R. Eickemeyer Hat sweat leather, G. H. Dimond Horseshoe toe weight, A. Fischer Hot air furnace, W. F. Beecher Hot air furnace, W. F. Beecher Hot air furnace, W. F. Beecher	217,762 217,678 217,792 217,677 217,875 217,875 217,701 217,875 217,701 217,801 217,701 217,801 217,701 217,801 217,701 217,801 217,701 217,801 217,701 217,801 217,701 217,801 217,701 217,801 217,701 217,801 217,701 217,709 217,714 217,709 217,717 217,709 217,717 217,709 217,717 217,709 217,717 217,709 217,717 217,709 217,717 217,709 217,717 217,709 217,717 217,709 217,717 217,709 217,606
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Lamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcr. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, O. D. Warfield. Fluting machine, G. Adreance. Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd. Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford Globe, terrestrial, H. Allen. Glove, T. Munthe. Glove, T. Munthe. Glove, T. Munthe. Glove, Insking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun wad, Budd & Ogden. Gun wiper, J. P. Simons. Hat sizing or fulling machine, E. Eickemeyer. Hat sweat leather, G. H. Dimond Hatchway door operating device, G. K. Bancroft. Hides, machine fortreating raw, A. C. Krueger. Hinge and roller, gate, J. B. Bolinger Horseshoe toe weight, A. Fischer Hot air furnace, W. F. Beecher Hot air furnace, T. F. Henmich Inhaler, H. R. Hurd. King bolt, clip, G. E. Kerlicks.	217,762 217,673 217,814 217,792 217,877 217,875 217,875 217,875 217,707 217,785 217,707 217,717 217,717 217,717 217,717 217,718 217,801 217,717 217,717 217,718
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcn Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight. W. H. Broden Firearm sight, O. D. Warfield Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford Globe, terrestrial, H. Allen Glove, T. Munthe Glove, Insking, H. W. Price. Grain binders, knot tier for, G. B. Morton Grain drill, B. Regan (r). Gun wad, Budd & Ogden Gun wiper, J. P. Simons Hat sizing or fulling machine, E. Eickemeyer. Hat sweat leather, G. H. Dimond Hatchway door operating device, G. K. Bancroft. Hides, machine for treating raw, A. C. Krueger. Hinge and roller, gate, J. B. Boilnger. Hot air furnace, T. F. Hemmich Inhaler, H. R. Hurd King bolt, clip, G. E. Kerlicks. Kitchen cabinet, J. R. Kivett Lamp, electric. J. C. Porter.	217,762 217,762 217,762 217,767 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,774 217,676 217,774 217,812 217,772 217,772 217,772 217,773 217,774 217,616 217,774 217,616 217,774 217,617 217,61
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Lamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcr. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, O. D. Warfield. Fluting machine, G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd. Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford Globe, terrestrial, H. Allen. Glove, T. Munthe. Glove, T. Munthe. Glove, T. Munthe. Glove, Musking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun wad, Budd & Ogden. Gun wiper, J. P. Simons. Hat sizing or fulling machine, E. Eickemeyer. Hat sweat leather, G. H. Dimond. Hatchway door operating device, G. K. Bancroft. Hides, machine fortreating raw, A. C. Krueger. Hinge and roller, gate, J. B. Bolinger. Hot air furnace, W. F. Beecher. Hot air furnace, T. F. Henmich Inhaler, H. R. Hurd. King bolt, clip, G. E. Kerlicks. Kitchen cabinet, J. R. Kivett Lamp, electric. J. C. Porter. Lamp extinguisher, C. B. Pedlar	217,762 217,763 217,762 217,767 217,875 217,875 217,875 217,875 217,767 217,767 217,767 217,767 217,768 217,767 217,768 217,768 217,768 217,769 217,768 217,769 217,768 217,769 217,768 217,769
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcn Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, O. D. Warfield Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer. Glass pipe maker, J. B. Ford. Globe, terrestrial, H. Allen. Glove, T. Munthe Glove, T. Munthe Glove, Musking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun waid, Budd & Ogden. Gun wiper, J. P. Simons. Hat sizing or fulling machine, R. Eickemeyer Hat sweat leather, G. H. Dimond Hatchway door operating device, G. K. Bancroft. Hides, machine for treating raw, A. C. Krueger. Hinge and roller, gate, J. B. Bolinger Hot air furnace, W. F. Beecher Hot a	217,762 217,763 217,767 217,769 217,769 217,769 217,769 217,769 217,769 217,769 217,769 217,769 217,769 217,769 217,769 217,769 217,769 217,769 217,769
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, G. C. Daboll. Eyeglasses, mose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer. Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r). Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcr. Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, W. H. Broden Firearm sight, O. D. Warfield. Fluting machine, G. Adreance Forge, emery wheel, and drill, P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd. Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer Glass pipe maker, J. B. Ford Globe, terrestrial, H. Allen. Glove, T. Munthe. Glove, T. Munthe. Glove, T. Munthe. Glove, Musking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun wad, Budd & Ogden. Gun wiper, J. P. Simons Hat sizing or fulling machine, E. Eickemeyer. Hat sweat leather, G. H. Dimond Hatchway door operating device, G. K. Bancroft. Hides, machine fortreating raw, A. C. Krueger. Hinge and roller, gate, J. B. Bolinger Hoyseshoe toe weight, A. Fischer Hot air furnace, W. F. Beecher Hot air furnace, T. F. Henmich Inhaler, H. R. Hurd. King bolt, clip, G. E. Kerlicks. Kitchen cabinet, J. R. Kivett Lamp, electric. J. C. Porter Lamp, miner's, J. H. Gable. Lap table, work box, and work stand, M. Byrkit.	217,762 217,763 217,762 217,767 217,875 217,875 217,875 217,760 217,875 217,760 217,875 217,760 217,875 217,760 217,761 217,762 217,777 217,762 217,763 217,763 217,764 217,769 217,769 217,694 217,7694
Dental vulcanizer, J. S. Campbell. Door check, A. Witte Ear muff, H. E. Bonham Eave trough, F. Otto. Electric lighting apparatus, A. W. Hall Electric machine, dynamo. C. F. Brush Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. Doyle Electro-magnetic motor, J. C. Ludwig Electro-magnetic motor, J. C. Ludwig Elevator, H. Snowden Envelope, L. H. Rogers Eyeglasses, G. C. Daboll. Eyeglasses, nose clamp for, N. Watry Fanning mill, T. Willson Farm gate, W. R. Kramer Feathers, method and machine for shaving or splitting and withing the shafts of, G. M. Richmond (r) Fence wire, machine for barbing, G. C. Baker Fertilizers, apparatus for treating animal matters for, J. Mcl.arcn Fifth wheel, vehicle, J. Spreyer, Sr. Firearm sight, O. D. Warfield Fluting machine. G. Adreance Forge, emery wheel, and drill. P. B. Hillyer. Gas, apparatus for enriching illuminating, J. & J. Kidd Gas regulator, Eichler & Hartig Gas retort, T. F. Rowland (r). Gate, G. W. Addis Gate, J. Clore Glass, engraving and dressing, R. A. Sawyer. Glass pipe maker, J. B. Ford. Globe, terrestrial, H. Allen. Glove, T. Munthe Glove, T. Munthe Glove, Musking, H. W. Price. Grain binders, knot tier for, G. B. Morton. Grain drill, B. Regan (r). Gun waid, Budd & Ogden. Gun wiper, J. P. Simons. Hat sizing or fulling machine, R. Eickemeyer Hat sweat leather, G. H. Dimond Hatchway door operating device, G. K. Bancroft. Hides, machine for treating raw, A. C. Krueger. Hinge and roller, gate, J. B. Bolinger Hot air furnace, W. F. Beecher Hot a	217,762 217,762 217,762 217,767 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,875 217,771 217,875 217,772 217,772 217,784 217,795 217,795 217,797 217,79

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	Monkey wrench, B. W. Lloyd	217,697
	Mop head, W. H. Thayer	
	Mop wringer, W. Boswell	
	Mop wringer, W. H. Thayer	
:	Musical mstrument, mechan., Kelly & Matthews.	
	Oatmeal machine, S. F. Butts	
	Ore and rock crusher, T. R. Timby	217,754
	Ore washer, E. Bazin	
	Organ reed, C. N. Rand	
	Paper box machine, P. Cook	
	Paper cutting shears, C. Brombacher (r)	8,816
	Paper fastener, G. B. Thayer	217,831
	Paper for wrappers for cigars, etc., preparing,	
i	J. W. Bolles	217,767
	Pianofortes, device for leveling the key frames	
i	of, C. F. T. Steinway	217,828
	Planter, corn, L. J. Corbin	217,777
	Planters, check row attach. to seed, G. S. Simpson	217,751
	Plow, C. O. Wilder	217.759
į	Pocket flask and drinking cup. F. Knoblauch	217 695
	Printing machine for paper hangings, J.J. Janeway	217.735
	Projectile, A. L. Varney	217 756
1	Pyrometer, A. H. Seyferth	
i	Rail and telegraph conductor, P Bargion	217.766
1	Railway chair, J. Wodiska	217 718
	Railway track, portable, J. Tnrl	917 755
	Railway water tanks, watering column for, J. N.	~11,100
1	Poage	917 917
ľ	Reamer for deep wells, C. A. Mentry	
	Rein supporter, C. T. Grilley	017 600
	Saccharine and other liquids, apparatus for con-	211,000
	centrating and crystallizing, Monsanto & Gan-	
1	non	917 702
	Salt, process and apparatus for the mannfacture	211,102
	of, W. W. Elmer	017 604
	Cosh look II M Dooks	217,084

Sash supporter, G. W. Shaw. 217,750 Saw cleaner, cotton gin, R. S. Munger 217,813 Saw, drag, D. Heller (r) 8.618 Sawing machine, drag, W. Dyke 217,780 Sawing machine, drag. W. Dyke 217,784 Sewer trap attachment, W. Wilson 217,841 Sheet metal shaping machinery, E. W. Bliss 217,725 Shingles, packing, R. B. & H. H. Russell 217,748 Slate, artificial, D. M. Steward 217,733 Station indicator, C. G. Damaschky 217,735 Steam utilizer, exhaust, N. W. Ericson 217,785 Steam boller circulating tube, Sherlock & Booth 217,703 Still, M. M. Monsanto 217,703 Valve, globe, F. Haskell 217,847 Valve, safety, Pringle & Robb 217.745 Vehicle seat fastening, J. Foster 217.790 Ventilator, J. Smith 217,712 Wagon brake, O. A. Kenyon (r) 8,817

 Washing machine, T. E. Muthel, Sr.
 217,762

 Washing machine, D. Kunkel, Sr.
 217,810

 Washing machine, T. E. Matthews
 217,707

 Washing machine, T. E. Tomathews
 217,700

 Washing machine, N. A. Stromquist
 217,715

 Water cooler, F. R. Lewis.
 217.738

 Water lifter, A. Collie.
 217.775

 Water inter, A. Colle.
 217,724

 Windmill, P. Bergman
 217,724

 Window ventilator, bulk, M. Eckstein
 217,732

 Wire colling machine, W. F. Moody
 217,704

 Yarn, machine for winding, J. T. & A. Boyd
 217,769

3		
5	TRADE MARKS.	
)	Blind awning fixtures, C. P. Dearborn	
1	Carriage springs, The A. A. Dart Company 7,543	
	Chewing and smoking tobacco and cigarettes, Mayo	
	& Watson	
ı	Chewing and smoking tobacco and cigars, J. M.	
3	Bobbitt 7,538	
	Cigars, Oliver & Robinson	
l	Cigars, cigarettes, and smoking tobacco, M. Jacoby	
3	& Co	
)	Cigars, eigarettes, chewing, smoking, granulated,	
7	and plug tobacco. and snuff, G.W. Van Slyke & Co 7,535	
)	Cigarettes and chewing and smoking tobacco, P. L.	
,	Chambers 7,545	
	Dietetic cocoa, H. Maillard 7,528	
)	Dry hop yeast, W. H. Coucher et al	
1	Fine cut chewing, smoking, and plug tobacco, C. B.	
,	Hull	
)	Fire brick, Newton & Co	•
L	Galvanic batteries, H. L. Roosevelt	
•	Grain separators, cleaners, and baggers, The Geiser	
,	Mannfacturing Company 7,546	
	Ground and crushed pop corn, Maynard & Wichel-	
ŀ	man	
	Lager beer, F. Hollender	
:	Medicines to be inhaled for the cure of catarrh, etc.,	
	P. W. Ziegler	
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	Phosphatic preparation, G. L. Austin & Co 7,542	
,	Pills. J. V. Stehl 7,532 Plows. A. Speer & Sons 7,541	
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	Sheetings, shirtings, cambrics, prints, and cloths, W. H. Oakley, Jr	
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,	Spices, H. F. A. Pinckney & Co	
	Stove polish, J. L. Prescott	
, ;	Toilet and other brushes, F. Loonen & Son	
'n	Toffet and other brushes, F. Loonen & Son 1,322	
	·	
,	DESIGNS.	
ı	Carpet, G. W. Piggott	
	Carpet pattern, A. Heald	
	Door handle and plate, G. S. Barkentin 11,299	
	Funoval apparants C H I samuel 11 200	

Oil cloth, C. T. & V. E. Meyer 11,301 English Patents Issued to Americans.

Funeral ornaments, C. H. Learned 11,303

Game counters, T. Miner. 11,302

From July 25 to July 29, inclusive. C. Stoll 217,830 From July 25 to July 29, inclusive.

Matches shipping package for, O. C. Barber 217,765 Dental chair, J. C. White, Philadelphia, Pa.

Meats, preserving, J. M. Dillon 217,779 Dummy figure, J. A. Gillotte, New York city Dummy figure, J. A. Gillotte, New York city.

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GENERAL TABLE OF CONTENTS

Of the Scientific American Export Edition for August, 1879.

August, 1879.

1.—INVENTIONS, DISCOVERIES, AND PATENTS. The Spar Torpedo Vessel Acheron. 12 engravings. New Bubble Blower. 1 engraving. Portable Mill. 1 engraving. Fork and Spoon Combined. 1 engraving. Recent Mechanical Inventions. Dr. (resson's Megascope.
The Polar Pantograph. 1 engraving.
Improved Potato Digger. 1 engraving.
New Thrashing Machine. 1 engraving.
New Agricultural Inventions.
Edison's Dynamometer.
Compass Electrical Alarm.
Improved Grinding Mill. 3 engravings.
New Agricultural Inventions.
Engineering Inventions.
Engineering Inventions.
Improved Nut Lock 4 engravings.
Relating to Patent Decisions.
Improved Pressing Machine. 3 engravings.
New Railroad Tie. 4 engravings.
Improvenent in Saw Gumming. 1 engraving.
The Writing Telegraph.
Improved Churn. 1 engraving.
New Electric Current Regulator. 1 engraving.
New Magnetometer. 2 engravings.
New Process of Phototypie.
New Process of Phototyp -INVENTIONS, DISCOVERIES, AND PATENTS.

II.—MECHANICS AND ENGINEERING.

1.—MECHANICS AND ENGINEED
TO Propel Boats.
Scrength of Boiler.
Future of American Engineering.
Power of an Engine.
Governors.
Strength of Ropes.
Machine Threads on Taps.
Dynamo electric Machine.
Repair of the Easton Bridge.
San Francisco's Big Ferry Boat.
New Great Gun. New Great Gun. Small Steamer. Small Stern Wheel Steamer Small Steamer.
Amateur Mechanics—Metal Spinning. 20 engravings.
Great Alpine Tunnel.
Suspension Bridge.
Canal Mowing Machine Wanted.
Freaks of Feed Pump.
Holes in Hard Steel.
Horse Power Rent.
Consumption of Smoke.
Small Steamboat.
Steam Catamaran.
Small Side-wheel Steamer.
Fortifying the Treasury.
Ring Spinning.
Boiler Explosions.
Small Boiler.
Discharge for Fountain. 1 engrav ng. Small Boiler.
Discharge for Fountain. 1 engrav ng.
1,500 Horse Power Hoister.
Railway Bridge for Niagara River.
Enropean Railway Speeds.
A Runaway Railway Wheel.
Steam Launch.
The Cycloscope. 1 engraving.
The Thunderer's Gun. 1 engraving.
Relative Economy in Steam and Gas Engines,
Fireproof Partitions.
Strength of Wires.
Nuts.

III. MINING AND METALLURGY.

II. MINING AND METALLURGY.
Fusible Metals.
Natural Soap Mine.
Casting Bronze in Wax.
Anthracite Cold. Effect of Exposure.
To Amalgamate Copper.
Imitation Gold and Silver.
To Extract Gold.
Explosion of Dynamite.

IV.-CHEMISTRY AND PHYSICS.

IV.—CHEMISTRY AND PHYSICS.
Astronomical Notes.
Electric Blowpipe.
Where to Study Chemistry in Germany.
Lime Water.
Lifetime of a Locomotive.
Reflecting Magic Lantern in Court.
Progress in Spectroscopy.
The Sun as a Source of Power. 3 engravmgs.
'elegraph Ignition.
Hard vs. Soft Water.
Probable Opportunities for New Discoveries in Acoustics.
Proportion of Air Chamber.
Assays.

Proportion of Air Chamber,
Assays.
Cheap Battery.
Dice Magnetism.
Induction Coil.
Induction Coil for Telephones.
Lightning Arrester. 1 engraving,
Longitude of the United States.
New Optical Delusion. 3 engravings.
Spring Phonograph.
Miss Hedley's Photographs—Spirit Photographs.
Changes in Photography.
Plumb and Perpendicular.
Inductive Action of Lightning.
Locating Lightning Rols.
Petroleum.
Photographic Patterns.
Carbon Photo-Printing,

The Meridian Circle. 1 engraving. Swift's Comet of 1879. 2 engravings. Negatives on Paper. The New Optical Delusion. 8 engravings. The Optical Delusion—An Explanation. 2 engrav-The Optical Delusion—An Explanation, ang.
The Aurora.
A New Map of the Solar Spectrum.
A Difficult Swim.
The August Meteors.
Adaptation of Electricity to Useful Purposes.
The Colors of Doubl Stars.
Electro-motive Force in Batteries.
Telegraph Lines.
Magnifying Power of Microscopes.
ALittle Paradox.

A Little Paradox.

V.—NATURAL HISTORY, NATURE, M. Alexis St. Martin.
Curious Facts about Ants.
rilaria Snake.
Progress in Fish Culture.
Natural History Notes.
Oaks and Pines.
The Phylloxera in France.
Great Tornadoes
Tornelies. 1 engraving.
An Aged Turtle.
A Finback Whale in New York Harbor.
Fossil Footprints in Anthracite.
Intellect in Brutes.
A Deaf-Mute Cow.
Smithsonian Institute uriosities.
Luray Cave Geological Specimens.
Use of the Hop Plant.
Ishmail Pasha.
A Meteorite in Iowa.
The Narica. 1 engraving.
Parrot Speech.
Ocean Currents at St. Paul's Rocks,
Traveling Rocks.
Baby Sea Lion.
Thomas vs. Dale.
White Africans.
Freezing Fish for Winter Use.
Pearl Fisheries of Ohio.
A Boy's Prompthess and Courage.
Sun Dance of the Sioux.
Chemistry and Physiology of Aquaria.
The Insect Enemies of Books.
The Coal Crop.
VI.—MEDICINE AND HYGIENE V.-NATURAL HISTORY, NATURE, MAN. &c.

VI.—MEDICINE AND HYGIENE
Intravenous Injection of Ammonia.
Alleged Cure for Rattlesnake Bite.
The Ammonia Bath.
Fish Food.
Hygienie Effects of Air.
Jelly and Jam.
A Sanitary Captain Eads Wanted.
House Drainage.
Havana the Pest-Breeding Place.
To Attain Long Life.
Stille on Yellow Fever.
Arsenic in Water Colors.
Relief of Color Blindness.
A Fall of 260 Feet.
Relative Value of Home-made and Bakers' Bread.
Fallacy of Refrigerating Ships for the Destruction of Yellow Fever Germs.
VII.—SCIENTIFIC MEETINGS, EXHIBITIONS, ETC.
Cincinnati Industrial Exhibition. VI.-MEDICINE AND HYGIENE.

VII.—SCIENTIFIC MEETINGS, EXHI
Cincinnati Industrial Exhibition.
U. S. Fish Commission.
The New Bureau of National Survey.
American Institute Exhibition.
American Association
American Association
American Exhibition.
Toronto Exhibition.
Toronto Exhibition.
International Fishery Exhibition.
Nordenskjold's Expedition.
The Worcester Free Institute.
VIII —INDUSTRY AND COMMERCE

VIII.—INDUSTRY AND COMMERCE.

The Worcester Free Institute.
VIII.—INDUSTRY AND COMMERCE.
Shall We Have a Canal or Ship Railway?
California Cod Fish Trade.
Diploma of Paris Exhibition. 1 engraving.
Opening of the Mississippi.
Activity not energy.
After Craduating—What?
American Competition.
Bank of England Notes.
The Darien Canal.
Machine Made Horsenalls.
How to Print Letters.
Names of Nails.
Brooklyn Navy Yard.
Pluck and Industry.
Signs of Prosperous Times.
Rocky Mountain Railways.
Manufacture of Damascus Steel.
Future of Texas.
Chinese Tile Factory.
Manufacture of valves. 6 engravings
Utilization of Waste Lands.
What to do next Winter.
American Manufactures in Cuba.
American Tariffs.
SCIENTIFIC AMERICAN in Italy.
A Large Smellting Contract.
St. Petersburg as a Seaport.
The Systeme Sebillot.
Trade in Time Pieces.
Value of a Trade Mark.
Lining for Petroleum Tank.
Overland Boating.
Labor at home and abroad.
Manufacture of Bessemer Steel. 2 engravings.
A Big Jam of Logs Broken.
The First Steam Ferry Boat Between New York and Jersey City.
Is it Paying?
Economical Use of Coal.

The Yint Steam Ferry Boat Between New York and Jersey City.
Is it Paying?
Economical Use of Coal.
The Cost of Living.
A Better Butter Package Wanted.
Who will Can Cream?
Balance of Trade in Men.
New Documents Relating to the Discovery of America.
Shoe Industry.
A Rapid Voyage.
IX — PRACTICAL RECIPES AND MISCELLANEOUS.

X.—PRACTICALRECIPES AND MISCELLANEOUS.
Notes and Queries.
How to Preserve Cider.
To Color White Clay.
To Make a Small Still.

Boiler Preparation. To Preserve Cedar Posts. A Home Made Daniell.
The Devil's Darning Needle.
Ink for Greased Leather.
Gold Beater's Skin. Gold Beater's Skin.
Razor Strops.
Hard Soap.
Browning's Stone Varnish.
To Cut Stoneware.
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