An experience of more than thirty years, and the preparation of not less than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequaled facilities for procuring patents everywhere. In addition to our facilities for preparing drawings and specifications quickly the applicant can rest assured that his case will be filed in the Patent Office without delay. Every application, in which the fees have been paid, is sent complete—including the model to the Patent Office the same day the papers are signed at our office, or received by mail, so there is no delay in filing the case, a complaint we often hear from other sources. Another advantage to the inventor in securing his patent through the Scientific American Patent Agency, it insures a special notice of the invention in the SCIENTIFIC AMERICAN, which publication often opens negotiations for the sale of the patent or manufacture of the article. A synopsis of the patent laws in foreign countries may be found on another page, and persons contemplating the securing of patents abroad are invited to write to this office for prices, which have been reduced in accordance with the times and our perfected facilities for conducting the business. Address MUNN & CO., office Scientific American.

## Business and Personal.

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 publication office as early as Thursday morning to appear in next issue.

Going Abroad. - Any family intending to visit Europe this summer, and desiring the services of a competent and experienced courier, can hear of an honest and obliging man, who speaks most of the Continental languages, to accompany them, by addressing the editor of this paper, P. O. Box 773, New York.

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 hose, address Eureka Fire Hose Company. No. 13 Barclay St., New York.

Valves and Hydrants, warranted to give perfect satisfaction. Chapman Valve Manuf. Co., Boston, Mass.

The reason why Downer's Anti-Incrustation Steam Boiler Liquid is so successful, lies in the fact that it is a scientific preparation. It meets all cases. perly used it cannot fail. Is not injurious to iron. Office 17 Peck Slip, New York.

Try the new fragrant Vanity Fair Cigarettes, both plain and halves. Most exquisite of all.

Walrus Leather for Polishing Agricultural Implements and all kinds of metal. Greene, Tweed & Co., N. Y.

The 1879 Pennsylvania Lawn Mower.-Light draught and easily adjusted. Machines warranted. See illustrated editorial, Sci. Am., No. 14. Lloyd, Supplec & Walton, Philadelphia, l'a.

Wanted-To sell-Patent for a simple and novelWeigh Scale, adapted to desk and counter use. Address P. O. Box 530, Pittsburg, Pa.

Special Notice.—Send for Electroplater's Catalogue and Price List to Partrick & Carter, Philadelphia, Pa.

2 H. P. Reversible Launch Engine, \$65; other sizes and pri es. Boilers, Fittings, Propellers, etc., New and Second-hand Launches and Machinery. S. E. Harthan Worcester, Mass.

Wanted-A 100 H. P. Variable ('ut-off Engine. Address P. O. Box 1208, New Haven, Conn

Sutton's Patent Pulley Cover.-If you are losing power, get it again by using these covers. Calculate bow much power you are losing and find the gain you will make in your work by adopting a positive remedy. Send for a circular. Address Joseph Woodward, proprietor and manufacturer, P. O. Box 3419, New York

The Improved Asbestos Roof Coating, as applied to fI. W. Johns' Asbestos Roofing, or to any other suitable foundation, forms a fibrous waterproof covering, partaking of the nature of a felt and a paint. It can be applied with a brush or a trowel to any desired thickness, and forms the most durable and economical roofing in use for mills, factories, warehouses, railroad buildings, bridges, etc. H. W. Johns Mfg. Co., 87 Maiden Lane, New York, sole manufacturers

For Standard Emery Wheels, and all kinds of Emery Wheel Machinery, at reduced prices, address Lehigh Valley Emery Wheel Co., Weissport, Pa.

Wanted—By a large manufacturing concern, a draughtsman competent to make working drawings from sketches and dimensions furnished him. Address. stating age, experience and salary expected, Draughtsman, P. O. Box 1961, New York

For Punches, Patent Bending Rolls, Radial Drills, and Angle Iron Shears, Hilles & Jones, Wilmington, Del.

Wanted - To buy for cash, Machinery for manufacture of Macaroni and Vermicelli. Address Chas H Flach & Bro., 112 Court St., Cincinnati, Ohio

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

S. C. Forsaith & Co., Manchester, N. H., and 213 Center St., New York. Specialtics—Bolt Forging Machines, Power Hammers, Combined Hand Fire Engines and Hose Carriages, new and second-hand machinery. Send stamp for illustrated catalogues, stating just what you

-Right of United States or single State for Todd's Flexible Horseshoe. Best invented. Enti satisfaction given. Geo. H. Todd, Montgomery, Ala. Best invented. Entire

Belcher & Bagnall, 35 Murray St., N.Y., have the most economical Steam Engines, Boilers, Pumps, in market; also improved wood and iron working machinery.

The Lehigh Valley Emery Wheel Co. has agencies at , N. Y., 206 Walnut Place, Phila, Pa., 59 S. Canal St., Chicago, Ill., and 51 Kilby St., Boston, Mass Gutta Percha. pure and sheeted, for sale in quantities

to suit. Anderson & Reynolds, Salem, Mass. 17 and 20 in. Gibed Rest Screw Lathes. Geo. S. Lin-

coln & Co., Hartford, Conn.

New Pamphlet of "Burnham's Standard Turbino Wheel " sent free by N. F. Burnham York, Pa

Clipper Injector. J. D Lynde, Philadeiphia, Pa Gaume's Electric Engine. 171 Pearl St , B'klyu, N.Y. Engines. 1/2 to 5 H. P. G. F Shedd, Waltham, Mass. Eagle Anvils, 9 cents per pound. Fully warranted. Diamond Saws. J. Dickinson, 64 Nassau St., N. Y.

Hose: all sizes. Greene, Tweed & Co., 18 Park Pl., N.Y.

Mundy's Pat. Friction Hoist. Eng., of any power, double and single. Said by all to be the best. J. S. Mundy, Newark. N. J.

Wanted-A manufacturer to make on contract 500,000 improved Screw Wrenches. Address Lock Box 146, Athol, Mass.

American Watch Tool Co., Waltham, Mass. Lathes for Watchmakers, Dentists, and Jewelers. Special machinery for watch and clock factories.

For Sale.-7 foot bed Putnam Planer, \$350. A. A. Pool & Co., Newark, N. J.

Bevins & Co.'s Hydraulic Elevator. Great power, simplicity,safety,economy,durability. 94 Liberty St.N.Y.

A Cupola works best with forced blast from a Baker Blower. Wilbraham Bros., 2,318 Frankford Ave., Phila. Shaw's Noise Quieting Nozzles and Mercury Pressure

Gauges. T. Shaw, 915 Ridge Ave., Philadelphia, Pa. For Solid Wrought Iron Beams, etc., see advertise-Address Union Iron Mills, Pittsburgh, Pa., for

H. Prentiss & Company, 14 Dey St., N. Y., Manufs. Taps, Dies, Screw Plates, Reamers, etc. Send for list.

Presses, Dies, and Tools for working Sheet Metal, etc. Fruit & other can tools. Bliss & Williams, B'klyn, N. Y.

Nickel Plating.-A white deposit guaranteed by using ourmaterial. Condit, Hanson & Van Winkle, Newark, N.J.

Hydraulic Elevators for private houses, hotels, and public buildings. Burdon Iron Works, Brooklyn, N. Y.

The Lathes, Planers, Drills, and other Tools, new and econd-hand. of the Wood & Light Machine Company, Worcester, are being sold out very low by the George Place Machinery Agency, 121 Chambers St., New York.

Hydraulic Presses and Jacks, new and second hand. Lathes and Machinery for Polishing and Buffing Metals. E. Lyon & Co ,470 Grand St., N. Y.

Solid Emery Vulcanite Wheels-The Solid Original Emery Wheel - other kinds imitations and inferior. 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.

Portland Cement-Roman & Keene's, for walks, cisterns, foundations, stables, cellars, bridges, reservoirs, breweries, etc. Remit 25 cents postage stamps for Practical Treatise on Cements. S. L. Merchant & Co., 53 Broadway, New York.

Needle Pointed Iron, Brass, and Steel Wire for all purposes. W. Crabb, Newark, N. J.

Manufacturers of Improved Goods who desire to build up a lucrative foreign trade, will do well to insert a well displayed advertisement in the SCIENTIFIC AMERICAN Export Edition. This paper has a very large foreign cirulation

Galland & Co.'s improved Hydraulic Elevators. Office 206 Broadway, N. Y., (Evening Post Building, room 22.)

Telescopes of all sizes manufactured; also, telescopes carefully corrected and repaired at short notice. I have testimonials from Lewis M. Rutherfurd, 175 2d Ave Y., certifying to the perfection of my telescopes. John Byrne, 314 E. 21st St., New York.

C. M. Flint, Fitchburg, Mass., Mfr. of Saw Mills and Dogs, Shingle and Clapboard Machines. Circulars.

The best Friction Clutch Pulley and Friction Hoisting Machinery in the world, to be seen with power applied, 35 and 97 Liberty St., New York. D.Frisbie & Co., New Haven, Conn.

Hydraulie Cylinders, Wheels, and Pinions, Machinery Castings; all kinds; strong and durable; and easily Tensile strength not less than 65,000 lbs. to squarein. Pittsburgh Steel Casting Co., Pittsburgh, Pa.

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

Pulverizing Mills for all hard substances and grinding purposes. Walker Bros. & Co., 23d & Wood St., Phila., Pa. The SCIENTIFIC AMERICAN Export Edition is published monthly, about the 15th of each month. Every

number comprises most of the plates of the four preced ng weekly numbers of the Scientific American, with other appropriate contents, business announcements, etc. It forms a large and splendid periodical of nearly one hundred quarto pages, each number illustrated with about one hundred engravings. It is a complete record of American progress in the arts.

# NEW BOOKS AND PUBLICATIONS.

1878. B printers.

The Massachusetts State Boardof Health justly ranks as the model institution of the kind in the country. Its cheap magazine, \$2 a year. reports are always valuable. Among those of 1878, three or four are of general as well as permanent interest; namely, Drainage and Health; Dangers from Color Blindness; The Filtration of Potable Water; School Sanitation; Scarlet Fever.

REPORTS ON THE PHILADELPHIA INTERNA TIONAL EXHIBITION OF 1876. Vol. III. London: printed for the Government. Price 5s.

Vol. III. of the British reports on the Centennial Exhibition contains a list of awards to British and Colonial exhibitors, with the specific recommendations by the judges on which the awards were based; General reports on groups 1, 6, 8, 9, 11, 12, 13, 18, 20, 21, and 25: and the report of the director of the Bureau of Medical Service. These volumes contain a vast amount of matter of permanent scientific and industrial interest.

VAN NOSTRAND'S SCIENCE SERIES: New York: D. Van Nostrand, 1879.

Sheet Metal Presses, Ferracute Co., Bridgeton, N. J. Robert Zahner, M.E.; No. 41, The Strength of Ma. republic.

Rubber Hose, Suction Hose, Steam Hose, and Linen terials, by William Kent. M.E.; and No. 42, Voussoir Arches applied to Stone Bridges, Tunnels, Domes, and Ground Arches, by William Cain, C.E. Price of each

> American Almanac for 1879. Edited by A. R. Spofford, Librarian of Congress. New York: American News Co., 12mo., pp. 420. Price \$1.50.

> This, the second issue of Mr. Spofford's valuable and convenient treasury of facts, is fully equal to its predecessor. The index covers ten closely printed columns, and refers mainly to skillfully tabulated statements of statistical, financial, and political facts of general and timely interest. Only those who do not read the newspapers will find iteasy to do without it.

> A POPULAR TREATISE ON THE CURRENCY QUESTION: written from a Southern point of view. By Robert W. Hughes, U. S. Judge of the Eastern District of Virginia. New York: G. P. Putnam's

An able argument against inflation and in favor of the national banking system. Judge Hughes is a bimetallist, but wants a silver dollar to be all that it pretends to be-afull dollar; and holds that gold and silver have demonstrated their title to be the only material for money by successful competition with all other materials.

How to Read, and Hints in Choosing the Best Books. By Amelia V. Petit. New York: S. R. Wells & Co.

A book likely to be useful to young readers with unformed critical taste, who wish to read wisely but lack knowledge and experienced guidance.

POCKET BOOK FOR CHEMISTS. CHEMI-CAL MANUFACTURERS, METALLURGISTS, DYERS, DISTILLERS, BREWERS, SUGAR REFINERS, PHOTOGRAPHERS, STUDENTS, ETC. By Thomas Bayley. New York E. & F. N. Spon.

Well packed with information of use to chemists, and fairly well indexed. Rather too ambitious and comprehensive for a pocket book, but all the better for a handy book of reference for the student's or the working chemist's table.

THE DESIGN GENERALLY OF IRON BRIDGES OF VERY LARGE SPAN FOR RAILWAY TRAFFIC. By T. C. Clarke, M. Inst. C.E. Edited by the Secretary of the Inst., James Forrest, London: Wm. Clownes & Son.

The Telford prize paper (with discussion) read before the meeting of the British Institution of Civil Engineers. May 21, 1878, by Thomas C. Clarke of Philadelphia. The paper attracted much attention during and after the faceting of the Institution, and was noticed in the Scientific American. It makes a valuable addition to the literature of civil engineering.

NAUTISCH-TECHNISCHES WOERTERBUCH DER MARINE: Deutsch, Italienisch, Französisch und Englisch. Bearbeitet von P. E. Dabovich, k. k. Schiffbau-Techniker. Herausgegeben von der Redaction der "Mittheilungen aus dem Gebiete des Seeroesens," Pola, Austria.

Of this dictionary the first part of vol. I, has appeared. Whoever from necessity or inclination has had occasion to peruse our modern literature on maritime matters, has no doubt felt the want of a dictionary explaining concisely the technical terms occurring in the different branches of naval science. In the above mentioned work this seems to have been successfully accomplished. Part 1, of Vol. I., which covers the terms from "A to "Ausblasen," contains the synonymous terms for about fifteen hundred German and Italian words in English and French. The Italian synonyms were added, no doubt, because they are of special importance to Austrian mariners, and, although of minor value to us, will be found a valuable addition, especially as the expressions are also given (in brackets) in the peculiar dialect of Austro-Italian seafaring men. The work will be published in two volumes, one of which contains, arranged in alphabetical order, the German and Italian, the other the English and French terms. Each volume will consist of about 8 parts, of about 80 pages each.

THE PRINCETON REVIEW. now one of the strongest periodicals published, gives in its March number nine long and able papers by the late Professor Taylor Lewis, of Union College; Principal Dawson, Montreal; Rev. Phillips Brooks, Boston; Edward A. Freeman, England; E. de Pressense, France; President McCosh Princeton; P. G. Hamerton, France; Rev. R. M. Patterson, Philadelphia; and Sir Julius Vogel, New Zealand. Of these contributions the second-" The Genesis and NINTH ANNUAL REPORT OF THE STATE Migrations of Plants"; the sixth—"Final Cause"; and BOARD OF HEALTH OF MASSACHUSETTS. the ninth—"The Islands of the Pacific," are of special gives the matter of a first rate quarterly at the price of a

> THE GOULDS MANUFACTURING COMPANY, of Seneca Falls, N. Y., have issued the 17th edition of their descriptive catalogue of pumps, engines, rams, and other hydraulic machinery. It makes a book of 224 pages, abundantly illustrated, and handsomely printed. Their list embraces a large assortment of suction and lift cistern and well pumps, force pumps, rotary force and fire pumps, rotary gas exhausters for gas works, gas pumos for oil wells, hydraulic rams, garden engines, patent chilled skeins an dboxes, steel amalgam bills, Burrall's corn shellers, and other iron goods.

THE BULLETIN OF THE NATIONAL ASSOCIATION OF WOOL MANUFACTURERS for 1878 contains, in addition to the proceedings of the annual meeting of the association, the address of John L. Haves. LL.D., on the resources of the United States for sheep husbandry and the wool manufacture, delivered before the National Agricultural Congress at New Haven, Conn., August 29, 1878; also an article on sheep husbandry and wool pro-The recent numbers of this useful series are No. 40, duction in the Argentine Republic, communicated by The Transmission of Power by Compressed Air. by E. Ollendorf, late Commissioner of Agriculture in that



### HINTS TO CORRESPONDENTS.

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

Names and addresses of correspondents will not be given to inquirers.

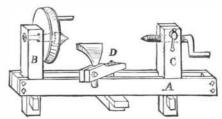
We renew our request that correspondents, in referring to former answers or articles, will be kind enough to name the date of the paper and the page, or the number of the question.

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

Persons desiring special information which is purely of a 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 Supple-MENT referred to in these columns may be had at this office. Price 10 cents each.

(1) L. F. C. asks if a lathe can be made entirely of wood excepting the centers. A. The accompanying cut shows a lathe made almost entirely of wood. The bed, A, consists of two wooden bars separated by



blocks at the ends, and fastened together by bolts. The head block. B. consists of a single piece of wood having a tenon which fits between the wooden bars of the bed and is secured by a key In the head block is fixed a center, on which turns a grooved pulley. This pulley maybe used as a face plate, and the chucks used in turning may be attached to it. The tail stock, C, has a threaded spindle passing through it, which may be clamped by the transverse screw to prevent it from turning, the tail stock being split to permit of drawing it together against the spindle. The tool rest is secured in the rest support, D, in a similar way, and the latter is secured by a cross piece and wedge suspended by a bolt. For wood and soft metals this lathe will answer very

(2) B. S. S. writes: Given a cylinder of 100 square inches and 32 inches stroke; steam is admitted at 1,000 lbs. and expanded 32 times. 1. What is the mean pressure per square inch? What the aggregate pressure? What the aggregate pressure without cutting off? Same for 100 lbs. steam, expanded 10 times? What is the economic effect and why? Instead of cutting off the 1.000 lbs, at 1 inch, suppose we admit the steam through a very small valve and expand 32 times as the piston travels, will the economic effect be the same? If not, give the reason why. A. Mean pressure 125 lbs., assuming no loss by radiation, condensation, or back pressure. We do not understand your term "aggregate pressure." The mean pressure of 100 lbs., expanding 10 times, is 33 lbs. We do not know of any method of comparing the results of "wire drawing" steam to the cylinder, with those of working steam expansively; but it is known in practice that "throttling," as it is called, will produce higher results with a given consumption of fuel, with an engine working either whole stroke or expansively. 2. Steam is said to be decomposed at 1.000° F., and upward. If we make 14,000 thermal units with 1 lb. of carbon, and use 4,000 units to decompose water into half a pound of hydrogen and 8 lbs. of oxygen, which, on burning, makes 16,000 thermal units, have we not 26,000 units for 1 lb. of coal instead of 14,000 units? Where is the fallacy of the statement? A. For reply to your second query we refer you to Clark's "Manual for Mechanical Engineers," or Rankine's "Steam Engine." 3. Do you know of any exper ments testing the amount of steam that maybe used to create a draught without injury? The books claim that it costs as much to decomposesteam as it is worth. Is this so? A. We know of no such experiments, but we do know that it is the most expensive mode of using steam for producing artificial draught.

(3) W. L. writes: I am a constant and instructed reader of your most valuable paper as well as SUPPLEMENT. I seldom find error, but most reliable information that has given me great pleasure, profit, and satisfaction. In the issue dated March 15, 1879, I find that, in answer to a question by R. B. R., as to the weight Boston: Rand, Avery & Co., interest to scientific readers. The Review is now published bi-monthly, in New York (37 Park Row), and error. You say the Janus weighed 34 tons. I knew the engine well-saw her wrecked to her destruction. Without positive data. I will say that 84,000 lbs. was her extreme weight. I mean the simple engine, without tender, water, or fuel. I further beg to say that I do not believe that there was ever a locomotive built that weighed over 60 tons, if so much-I mean, as above, the simple locomotive. My experience is that no locomotive of that weight could be made to endure. No steel rail can be made to sustain the running wear of such a weight, nor could metal be found for tire that would stand such a stress. I mean an engine stou tenough to make the curves of our American railroads. The Lehigh Valley Railroad Company, at their shops at Weatherly, under the supervision of Philip Hoffecker, the master mechanic, has built several colossal machines, some 10 drivers connected, some 8 drivers connected, with a truck under the front, that do not weigh more than 75,000 lbs., that work on the 150 foot grade and do double the work that the "Janus" did on the same grade. Mr. Hoffecker, as well as all well informed mechanics and railroad men, believe that they are the maximum weight for economy and endurance of the best rail and metal now extant. I would not have written this did I not desire to see the Scientific American always right. A. You are probably correct; the weight of the engine

only could not have been so great as 84 tons; this weight probably included water in boiler and the tender with threads to the inch in steam pipe? A: water and coal. "Roper" gives the weight of the heaviest locomotive on the Pennsylvania Railroad as 60 tons, and says it is the heaviest locomotive in the world. An engine of the "Consolidation" class, with cylinders 20x24 inches, weighs 96,000 lbs. A medium class passen ger locomotive weighs, with water in boiler, from 65,000 to 70,000 lbs., and tender, with water and coal,46,000 lbs.

- (4) W. C. J. writes: I have been experimenting on a plan for a steam gauge; I find it works well and cannot get out of order. As an atmospheric pressure is 15 lbs. per square inch, twice that would be thirty, three times forty-five, and so on. Now, supposing a piston be so constructed that the pressure of the boiler will compress the air in a tight tube and thus show what the pressure on the boiler is. Also to have the cylinder so constructed that when the pisten moves up to the required pressure it shall open a port and let the steam escape. Some time ago I wished to purchase a new steam gauge; I took seven gauges for trial, and connected them all to the same boiler at the same time, and no two were alike. Now, as some of them showed as high as 20 lbs. more than others, how could I determine which was right? A. We advise you not to waste your time and money upon your proposed manometer gauge; they have been tried and abandoned long since. Of course you can purchase a cheap (and poor) gauge, as you can a cheap and poor watch. Some spring gauges are like Pindar's razors, not made to use, but to
- (5) C. W. K. writes: I wish to ascertain coal consumed, with the following data: Size of cylinder 6% inches, stroke 8 inches, number of revolutions 120 per minute, at steam pressure of 80 lbs. A. Find the weight of steam used by your engine, in any unit of time, say | traces of bismuth, and silver. The crystals are anhyone minute or one hour; allow cannel coal to evaporate | drite calcium sulphate.-I. B. R.-It is galena-lead 7.4 lbs. weight of water per pound of coal; divide the weight of steam used by 7.4, result is coal consumed in
- (6) "Subscriber" asks if it be safe to use an engine with 80 lbs. steam, the cylinder being little less than 1/2 inch thick the thinnest part. It is 22 inches long, 10% diameter. A.-Yes, so long as it receives no extra strain or shock; but do not allow water to work through the engine.
- (7) C. F. writes: It is said that 2 inch pipe will not discharge any more water under the same head than as many 1/2 inch pipes, said 1/2 inch pipes holding the same amount of water. Give us the difference and the reason why. A. 2 inch pipe will discharge most; 16 pipes 1/2 inch equal in cross area one of 2 is the so-called millstone grit. It is too coarse to be of inches diameter. The frictional surface of one 2 inch pipe | any practical value. Perhaps better stone may be found may be represented by 6, and the frictional surface of lower down. 16 pipes, ½ inch diameter, by 25—so the resistance from friction will be 4 times as much in the latter as the
- (8) D. K. E. asks: 1 Could a small steam engine (screw propeller)!be put into an ordinary row boat 16x31/2 feet? A. Yes, if the screw is properly immersed. 2. What would the engine cost, and how much power would be required to run 4 or 5 miles per hour? A. An engine with 3 inch cylinder would suit. Cost about \$450 with boiler and shafts.
- (9) J. N. L. asks: Is a  $1\frac{1}{2}$  steam pipe sufficient to run a 9 inch cylinder, 16 inches stroke, steam engine to full capacity; the steam ports are 5 inches long by 1/8 wide, steam pressure 100 lbs. per square inch? A. No; use at least a 2-inch pipe for usual
- (10) E. J. C.—For information on artificial incubation see Scientific American Supplement, No.
- (11) J. L. C. writes: I have a tank in my house supplied with water which communicates with a tank 101 feet off in a direct line by a pipe with 11/4 inch | Air brake relief valve, H. H. & T. C. Osgood..... 212,972 the house tank and up perpendicularly 5½ feet into the Animal trap. 1. R. Spencer. 212,999

  Sutside tank; the open end of the pipe in the house is Axle nut, vehicle, G. J. Dykes. 212,842

  2 feet higher than the open end of the pipe in the other Bale tie, J. M. Robertson. 212,984 2 feet higher than the open end of the pipe in the other 1. How much, if any, will the flow of water beincreased by lowering the outer end of the pipe, say 1, 2,3, or 4 feet? A. If the difference in height of open end of pipes is now 2 feet, and you increase it to 4 feet, the flow will be increased about 40 per cent. 2. Will more water pass through an inch perpendicular pipe 10 feet long, than through an inch pipe 1 inch long? A. Yes, if upper ends are at the same level and both supplied from the same tank or reservoir.
- (12) J. L. R. asks: 1. Which will yield the greatest amount of heat; 1 lb. of best coal, or 1 lb. of alcohol when burned to best advantage? A. Coal about 7 per cent more 2. Why are not low pressure engines used in place of high pressure? Will they not give same power with far less fuel? A. They weigh more, cost more, occupy more room, and do not give much as the two classes are u country. 3 How many pounds will an ordinary horse pull on a straight pull? A. Necessarily indefinite; depends upon the weight of the horse, etc.
- (13) S. C. C. asks: When a train of cars are rounding a curve, on which rail is the greater weight thrown, the inside or outside one? A. Outside one.
- (14) J. A. H. asks: What can I use to prevent the forming of scales in a boiler? I am compelled to use water from a well which furnishes lime water. A The mass of lime in your feed water should be separated in the heater; for removing lime scale already formed, use a small quantity of dissolved gum catechu daily, sent in through feed pump; watch carefully its effect, and increase or diminish the quantity as required. A small quantity of oak bark put in the boiler is said to
- (15) A. H. G. writes: You say in your issue of January 4th, 1879, in obtaining horse power of an engine, multiply area of piston, by pressure of steam by length of stroke in feet, by double the number of revolutions. Do you not mean: "by revolutions per minute," instead of "double the number of revolutions?" A. No; double the number of revolutions

(16) J. H. R. asks: What is the number of

Inside diameter of pipe.	Threads per inch.
<u>}</u> 8	
<b>X</b>	18
¥4	
1	1132
1¼ 1¼	
2	111/4
2½ 3	8
81/2	8
4	8

- (17) S. B. & H. W. ask why rotary engines are not more used. A. It is very difficult to keep them tight under continuous use, and in most of them steam cannot be worked expansively, therefore they are not economical.
- (18) J. C. asks (1) if there is any way of keeping a cylinder, while in motion, and heated by steam, free from condensation A. Surround your cylinder with a steam jacket and introduce either live or superheated steam. 2. What kind of journal boxes o, 3ht such a cylinder to have, that they may cause no trouble from heating? A. Probably phosphor bronze boxes will be best.
- (19) A. M. U. asks for a correct method for laying out a cog or spur wheel. A. See Scientific American, vol. 38, pp. 36 and 149.

MINERALS, ETC.—Specimens have been reif there is any rule for finding the quantity of cannel ceived from the following correspondents, and examined, with the results stated:

> H. M. H.—The bead contains copper, lead, antimony, sulphide. It probably contains a small quantity of silver. The heavy mineral is barytes, or heavy spar-sulphate of barytes.-J. A. W.-It is a bituminous shale. It is impossible to make an analysis of any value on two ounces of water.—A. M.—It is a ferruginous quartz—not probably worth assaying. The dark fragment is an argillaceous shale.—The sample of clay in the Estabrook pen box (no name) contains much iron oxide and silica. It may be useful for manufacturing bricks and cheap pottery. tiles, drain pipe, etc.-J. N. W -The potter's clay is of fair quality. It would be of more value if properly washed. The color is due to oxide of iron.—C.—The metal is lead—it contains a trace of silver. The mineral is muscovite.-C. D.-It is chiefly iron sulphide pyrite, of little value.—J. C.—The sample

## COMMUNICATIONS RECEIVED.

Fence. By G. T. B. On the Wagon Wheel Question. By G. S. W. On the Gary Motor. By C. H. H.

[OFFICIAL.]

# INDEX OF INVENTIONS

FOR WHICH

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

## March 4, 1879, AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

A complete copy of any patent in the annexed list, including both the specifications and drawings, will be furnished from this office for one dollar. In ordering, please state the number and date of the patent desired, and remit to Munn & Co., 37 Park Row, New York city.

Bales, covering or cotton, W. P. Groom 212,925
Baling press, S. Stucky 212,823

 Baling press, J. M. Tichenor
 213,010

 Ball trap, T. M. Smith
 212,990

Bed bottom, S. Hawker ...... 212,930

	Bed bottom, W. H. Leininger	212.954
	Bed bottom, W. J. Myers	
i	Bedstead, cabinet, J. W. Stanton	
	Bee hive, J. P. Karr	
:	Bee hive, N. Zink.	
	Beer barrel, etc., air supplier, W. F. Class	
	Beer cooler, W. Klinefelter	
٠	Blackboard, F. G. Johnson	
•	Bleaching compound, T. D. Brochocki	212.890
	Blind fastener, A. F. Fuller	
i	Blind slat adjuster, O. C. Peck	
	Bone grinding mill, T. O. Cutler	
1	Book case, J. Danner	212 909
	Book case, E J. Smith	
:	Boot and shoe counter or heel stiffeners, machine	
1	for shaping, R. Glover	212.929
	Boot and shoe stay, A. Seaver (r)	
{	Boot and shoe trimming and burnishing machine,	0,000
i	R. C. Lambert	919 859
	Boots and shoes, machine for driving staples in	214,000
ļ	lasting, S. Mower	212 861
ì	Bottle washer, S. W. Dillin	
į	Breastwork or shield, movable, M J. Wellman	
i	Brick pressing machine, W. L. Hippert	
ì	Bridge, P. Jarvis	
İ	Bridle bit, reversible, Holland & McKimm	
•	Brooms. manufacture of, D. C. M. Barney	
i	Brush, hair, F. A. Freeman	
١	Brush, mucilage, J. B. Davids	
	Buckle clasp, F. D Ballou	
١	Buildings. construction of, H. R. Canine	
•	Butter mould, M. T. Nesbitt	212.970
	Candy machine, R. M. Marshall	212,81
	Car coupling, N. F. Wynkoop	213,023
	Car door, grain. Conrath & Knipper	212,901
	Car door, grain, F. C. L. G. Susemihl	213,004
	Car replacer, M. S. Shotwell	212,99
	Car starter, R. Proctor	212,820
	Car wheel, chilled, N. Washburn	212.825
	Carbureter, H. S. Maxim	
	Carding engines to prevent their disintegration,	

treating rovings on, Haigh & Greenwood.. .. 212,929 Carriage curtain fastener, E. G. Grahn......... 212,924

	Emryson.	[APRIL 12, 1879.
f	Cart body, F. H. Trenholm (r)	Saw, circular, J A. Miller
-	Casting steel, mould for, G. Cowing         212,992           Check register, J. Casey         212,788	Saw mill dog, E. H. Stearns. 213,002 Scissors and shears, A. Clarke 212,790
	Chuck, drill, H. S. Pruyn 212,980	Scoop, coal, J. Balmore 212,883
	Clothes line support, P. Fischer	Scoop, weighing, J. Birks         212,786           Seed cleaner, blue grass, I. B. Sandusky         212,821
	Clothes pounder, N. & J. Connoran 212,900	Sewer pipes and deodorizing the foul air there.
	Coal slide or chute, G. A. Fall       212,915         Coffee pot, G. F. Hussey       212,801	from, ventilating, A. W. Rand
	Coin holder, L. H. Olmsted 212,867	Sewing machine, J. 11. Applegate 212,783
	Convertible chair, J. Lee (r)         8,604           Cork extractor, L.C. Mumford         212,863	Sewing machine feeder, N. Durkopp.         . 212.793           Shaft, flexible, N. Stow (r)         8,607
	Corn stalk cutter, W. Barnes (r) 8,608	Shawl strap and head rest. H. H. McLane 212,812
	Cradle, A. S. Reisor	Shirt, dress, H. F. Elias       212,911         Shoe, J. F. Emerson       212,794
	Cut-off rain water or other, J. A. Lyons 212,958	Shoe sole trimmer, W. D. Orcutt 212,971
8 n	Dental chair, H. Woodbury       213,021         Desk and seat, school, G. Munger (r)       8,605	Shovel, W. Wharton, Jr
n	Distillation of oils, H. B. Everest 212,914	Sofa and chair back, J. H. Travis 213,012
t	Drawers, E. Levi       212,810         Drum, heating, N. J. Engler       212,913	Spinning machine spindle band holder, C.E. Herrick 212,933 Spools tension device for thread, R. O. Burgess. 212,893
£	Electric light, Du Motay & Stern 212,860	Spring shaper, S. A. Case
f y	Electric light. P. O. Jenkins	Stand for decanters, bottles, and jars, G., G. W., & J. Betjemann
r	Electrical signaling apparatus, T. N. Vail 212,873	Stand pipe and ladder, Tidball & Spencer 212,871
e	End gate, wagon, J. H. Sifers	Steam boiler, G. W. Doolittle         212,909           Steam boiler, A. H. Fowler         212,918
8 0	ture of. J. G. Ingram	Stencil plate, Krier& Irvin
e	Engraving machine, J. C. & G. M. Guerrant 212,927 Exercising machine F. G. Johnson 212,946	Stereotype cast. M J. Hughes
	Fare register, R. Gornall 212,798 Farm gate, T. Aiton 212,781	Stove, heating, McCaw & Brown
r	Farm gate, T Alton	Stove pipe safe and register, H. B. Morrison 212,968 Sun dial. L. Taurston
С	Feed water heater, E. Huber         212,936           Feed water heater, G. W. Storer         213,003	Surveying instrument, H. S. S. Watkin.       213,018         Swing, W. W. Elliott       212,912
	Fence post, G. D. Baily 212,784	Syringe, Perkins & Davol 212,975
d	Fence post, H. S. Palmer	Telegraph, fire alarm, C. H. Pond
4	File, bill, M. Posz 212,979	Ticket case, A. W. Sperry 213,000
, l	Fire alarm box, automatic, Pond & Tenney 212,818 Fire alarm box, non-interfering, C. H. Pond 212,869	Tobacco cutter, L. E. Heaten.         212,931           Tobacco cutter, T. B. McIntosh         212,859
	Flue roller and expander, J. H. McGraw 212,964	Toy motor, H. Groth
₹	Fluting bed and roller, M. A. Perrigo	Truck cover supporter, J. G. A. Walker
e.	Gas apparatus, illuminating, E. J. Jerzmanowski. 212,9-13	Truck, plow and farm, B. Franklin 212,919
8	Gas generating apparatus, E. J. Jerzmanowski 212.942 Gas retorts, head and lid of, C. W. Isbell 212,940	Tugs or traces, draught, W. M. Cuthbert
o ot	Glassware, shaper for tubular, A. H. Heisey 212,932	Tuyere, G. M. Smith
n n	Grain, etc., cooler and drier, F. A. Luckenbach 212,955 Grate bar, J. B. Miller	Twist drills, making, C. Jacobson
e	Harrow, J. F. Wilcox 213,020	Umbrella notch ring, O. M. Smith 212,997
e B	Harrow, J. H. Yager	Valve, C. C. Walworth
e	Hat, J. Thomas	Vegetable assorter, J. H. & H. J. Heinz 212.849
e	Hat forming machine, R. Eickemeyer	Vegetable cutter, C. J. Gardner         212,421           Vehicle brake lever, J. Yenne         213,025
f l-	Heating furnace, J. H. Merrill       212,965         Reel cutting die, H. Turner       213,013	Vehicle spring, J. J. Cobb         212.791           Vehicle spring, A. L. & L. A. Davis         212,905
у	Hog trap, R. D. Loudon	Velocipede, II. W. Baltz, Sr 212,884
e f	Hoisting apparatus, G. Sanford. 212,989 Horse power, R. S. Legett 212,854	Wagon jack, J. B. Gillaspie
d	Horse power tread, H. Smith 212,993	Wall paper exhibitor, H. M. Collins 212,899
	Horse tail protector, J. Briggle	Watch, calendar, B. Baillot         212,882           Water elevator, steam, E. C. Plumer         212,978
	Hose support, A. M. Waterworth 212,876	Water wheel, C. E. Marshall
	Hub, vehicle wheel, A. V. Holcomb	Wave power for propelling vessels, J. B. Greene 212,847 Wells, sucker rod ocket for oil, J. H. Bair 212,831
	treated therewith, removing, W. Adamson 212,878	Whiffletree plate, H. Keyes 212,803
.	Indicator, F. N. Chase	Whip rolling machine, O. Bryant
-	Insecticide, J. C. Benton	Yarn winder, J. & T. A. Boyd 212,888
	Iron, galvanizing and tinning, Wahl & Eltonhead. 213,015 Ironing table, S. W. Kilbourne 212,805	Yoke strap, neck, H. Keyes
	Jewelry, sprig work for, L. Heckmann 212,848	
	Knob, sheet metal, H. A. Matthews	Ales, W. A. Miles & Co
е	crimping, R. Hemingray, 212.850  Lantern, J. H. Irwin (r) 8,611	Blood purifying medicines, A. Seidel & Co 7,071
	Last maker's guide, J. Kimball 212,852	Blood purifier and fattening remedy, J. H. Langley 7,079 Certain medicinal preparations, G. H. Schafer 7.072
	Lasting machine, S. E. Mower       212,815         Lasting machine, H. G. Thompson       212,824	Cigars, C. Upmann
٠,	Latch, W. I. Ludlow	Cigars, cigarettes, and smoking and chewing to- bacco, A. Lichenstein & Bro
-	Lead fumes, collecting waste, G. T. Lewis 212,855 Leather work, machine for opening and pressing	Cleansing preparation for removing stains, etc.,
e e	seams in, G. W. Emerson et al 212,843	Cauldwell & Hubbard         7,063           Coffee, Sherman Bros. & Co.         7,060
ζ.	Lifting handle, chest or box, W. Bachtenkirch 212,881 Lock, J. J. Dinnan	Collars and cuffs, G. B. Cluett, Bro. & Co 7,055
٠,	Lock, W. I. Ludlow 212,957	Dyspepsia powders and pills. G. W. Folts
2	Lock, W. H. Taylor	Gas stoves, W. W. Goodwin & Co 7.070
17	Measuring lumber, device for, E. Neary 212,817	Laundry soap, Colgate & Co
9	Mechanical medium, II. J. Stein	Medicated paper for water closet use, Pond's Extract Company
4	Milk cooler, L. B. Austin 212,830	Medical compound for plasters, W. J. Brown 7,654
5 3	Motor, J. Plattenburg.         212.977           Music leaf turner, O. H. Goodwin.         212,846	Medical compound, J. R. Mathewson & Son
0	Oil cloth, metallic binding strip for, C. E. Marshall 212,961	Metals, B. W. Baldwin
6 0	Oil press mat, Perkins & Baker	Mixed oil paints ready for use, Chicago White Lead and Oil Company
4	Padlock, II. Budd	Ointments, J. I. Standart
6 )1	Paintings on panels and other surfaces, reproducing oil, H. Bogaerts	Plug smoking and chewing tobacco, H. M. Cochran 7,664 Pure Norwegian cod liver oil, Faulkner & Craighill. 7,656
9	Paper, M. Newton	Rivets, washers, burrs, and the like articles of cop-
8 8	Paper folding machine, W. Spalckhaver	per and brass, Plume & Atwood Manf. Co 7,001 Satinets and cassimercs, F. Glazier 7,068
1	Paper pulp from wood, S. M. Allen         212,782           Pegging machine, A. W. Moore         212,814	Sauces, J. Lusk & Co
5 0	Photographing objects in motion, method and ap-	Spectacles and eyeglasses, Clapp, Young & Co 7,067 Toilet powders, R. M. Hobbs
3	paratus for, E. J. Muybridge	Toilet preparations, Pond's Extract Company 7,084
8	Pinchers for attaching seam protectors, paper	DESIGNS.
13	fasteners, etc., Rutz & Weiser       212,938         Pipe and nut wrench, D. Fisher       212,735	Boxes, A. Wuensch 11,057
- !	Tipe and nativited on the state of the state	Carnet I Forrester

Pumping, forcing, and blowing, machinery for,

Check register, J. Casey 215 Chuck, drill, H. S. Pruyn 215		Scissors and shears. A. Clarke	
Clothes line support, P. Fischer 215	12,916	Scoop, weighing, J. Birks	212,786
Clothes line support, extension, F. Fischlein 21: Clothes pounder, N. & J. Connoran 21:		Seed cleaner, blue grass, I. B. Sandusky	212,821
Coal slide or chute, G. A. Fall		from, ventilating, A. W. Rand	212,981
Coffee pot, G. F. Hussey		Sewer and embroiderer, L. C. Mumford	
		Sewing machine feeder, N. Durkopp	
Cork extractor, L.C. Mumford		Shaft, flexible, N. Stow (r)	8,607 212 812
Cradle, A. S. Reisor	12,982	Shirt, dress, H. F Elias	212,911
Curtain roller and bracket, Buckley & Sawyer (r). Cut-off rain water or other, J. A. Lyons		Shoe, J. F. Emerson	
Dental chair, H. Woodbury		Shovel, W. Wharton, Jr	
Desk and seat, school, G. Munger (r)		Snap nook, E. Kempshall	
Drawers, E. Levi		Spinning machine spindle band holder, C.E. Herrick	
Drum, heating, N. J. Engler		Spools tension device for thread, R. O. Burgess,	
Electric light, P. O. Jenkins		Spring shaper, S. A. Case	212,000
Electric signaling apparatus, E. N. Dickerson, Jr. 215		& J. Betjemann	
Electrical signaling apparatus, T. N. Vail		Stand pipe and ladder, Tidball & Spencer	
Enemas, syringes, etc., of india-rubber, manufac-	10.000	Steam boiler, A. H. Fowler	
ture of. J. G. Ingram		Stereotype cast. M J. Hughes	
Exercising machine F. G. Johnson		Storage tank, portable, T. B. Riter	
Fare register, R. Gornall		Stove, heating, McCaw & Brown	
Feather renovator, Lull & Brainerd		Sun dial. L. Thurston	
Feed water heater, G. W. Storer		Surveying instrument, H. S. S. Watkin Swing, W. W. Elliott	
Fence post, G. D. Baily		Syringe, Perkins & Davol	
Fence post, H. S. Palmer		Telegraph, fire alarm, C. H. Pond  Textile and other fabrics cutter for, A. Warth	
File, bill, M. Posz		Ticket case, A. W. Sperry	
Fire alarm box, automatic, Pond & Tenney 21: Fire alarm box, non-interfering, C. H. Pond 21:		Tobacco cutter, L. E. Heaten Tobacco cutter, T. B. McIntosh	
Flue roller and expander, J. H. McGraw 215	12,964	Toy motor, H. Groth	212,926
Fluting bed and roller, M. A. Perrigo		Truck cover supporter, J. G. A. Walker	
Gas apparatus, illuminating, E. J. Jerzmanowski. 21	12,9-13	Truck, plow and farm, B. Franklin	212,919
Gas generating apparatus, E. J. Jerzmanowski 21: Gas retorts, head and lid of, C. W. Isbell 21:		Turnstile register, F. O. Deschamps	
Glassware, shaper for tubular, A. H. Heisey 21		Tuyere, G. M. Smith	
Grain, etc., cooler and drier, F. A. Luckenbach 215 Grate bar, J. B. Miller	12,966	Twist drills, making, C. Jacobson Umbrella handles, ribbon retainer for, J. Wright.	
Harrow, J. F. Wilcox		Umbrella notch ring, O. M. Smith	
Harrow, J. H. Yager		Valve, C. C. Walworth	
Hat, J. Thomas 21	13,008	Vegetable assorter, J. H. & H. J. Heinz	
Hat forming machine, R. Eickemeyer		Vegetable cutter, C. J. Gardner	
Heating furnace, J. H. Merrill		Vehicle spring, J. J. Cobb	
Hog trap, R. D. Loudon		Velocipede, II. W. Baltz, Sr	
Hoisting apparatus, G. Sanford		Wagon jack, J. B. Gillaspie	
Horse power tread, H. Smith 21	12,993	Wall paper exhibitor, II. M. Collins	212,899
Horse tail protector, J. Briggle		Watch, calendar, B. Baillot	
Hose support, A. M. Waterworth		Water wheel, C. E. Marshall	
	12.934		
Hudrogerbon from substances which have been	,	Wave power for propelling vessels, J. B. Greene	
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 215	12,878	Wells, sucker rod ocket for oil, J. II. Bair	212,831 212,803
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21: Indicator, F. N. Chase	12,878 12,789	Wells, sucker rod ocket for oil, J. H. Bair Whiffietree plate, H. Keyes	212,831 212,803 212,891
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21: Indicator, F. N. Chase	12,878 12,789 12,800 12,835	Wells, sucker rod ocket for oil, J. H. Bair Whiffletree plate, H. Keyes Whip rolling machine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd	212,831 212,803 212,891 212,822 212,888
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21: Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015	Wells, sucker rod ocket for oil, J. II. Bair Whiffietree plate, H. Keyes Whip rolling machine, O. Bryant Wind wheel, C. V. Stevens	212,831 212,803 212,891 212,822 212,888
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21: Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,905 12,848	Wells, sucker rod ocket for oil, J. H. Bair Whiffletree plate, H. Keyes Whip rolling machine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes TRADE MARKS.	212,831 212,803 212,891 212,822 212,888 212,804
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21: Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,805 12,848 12,962	Wells, sucker rod ocket for oil, J. H. Bair Whiffletree plate, H. Keyes Whip rolling machine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes TRADE MARKS.  Ales, W. A. Miles & Co	212,831 212,803 212,891 212,822 212,888 212,804
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,805 12,848 12,902	Wells, sucker rod ocket for oil, J. H. Bair Whiffletree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS. Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co.	212,831 212,803 212,891 212,822 212,888 212,804 . 7,069 . 7,056 . 7,071
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21: Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,805 12,848 12,962 12,850 12,850 8,611	Wells, sucker rod ocket for oil, J. H. Bair Whiffletree plate, H. Keyes Whip rolling machine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes TRADE MARKS.  Ales, W. A. Miles & Co Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifier and fattening remedy, J. H. Langley	212,831 212,803 212,891 212,822 212,888 212,804 . 7,069 . 7,056 . 7,071 y 7,079
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,905 12,848 12,962 12,850 8,611 12,852 12,815	Wells, sucker rod ocket for oil, J. H. Bair	212,831 212,803 212,891 212,822 212,888 212,804 . 7,069 . 7,056 . 7,071 y 7,079 . 7,062 . 7,062
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,805 12,848 12,962 12,850 8,611 12,852 12,815 12,824	Wells, sucker rod ocket for oil, J. H. Bair Whiffietree plate, H. Keyes Whip rolling nachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes TRADE MARKS.  Ales, W. A. Miles & Co Blood purifying medicines, A. Seidel & Co Blood purifier and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to	212,831 212,803 212,891 212,822 212,888 212,804 . 7,069 . 7,056 . 7,071 y 7,079 . 7,062
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,805 12,905 12,848 12,962 12,850 8,611 12,852 12,815 12,824 12,952	Wells, sucker rod ocket for oil, J. H. Bair	212,831 212,803 212,891 212,822 212,888 212,804 . 7,069 . 7,056 . 7,071 y 7,079 . 7,062 . 7,060
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,809 12,835 13,015 12,848 12,962 12,848 12,962 12,850 12,851 12,852 12,815 12,824 12,855	Wells, sucker rod ocket for oil, J. H. Bair Whiffiletree plate, H. Keyes Whip rolling nachine, O. Bryant Whip rolling nachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes TRADE MARKS.  Ales, W. A. Miles & Co Blood purifying medicines, A. Seidel & Co Blood purifying medicines, A. Seidel & Co Blood purifer and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro Cleansing preparation for removing stains, etc. Cauldwell & Hubbard	212,831 212,803 212,891 212,822 212,888 212,804 . 7,069 . 7,056 . 7,071 y 7,072 . 7,062 . 7,063
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,905 12,848 12,962 12,855 12,855 12,815 12,824 12,855 12,843 12,855	Wells, sucker rod ocket for oil, J. H. Bair Whimetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros. & Co. Collars and cuffs, G. B. Cluett, Bro. & Co.	212,831 212,803 212,891 212,822 212,888 212,804 . 7,069 . 7,056 . 7,071 y 7,079 . 7,060 . 7,060 . 7,060 . 7,060
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,905 12,848 12,905 8,611 12,852 12,815 12,852 12,856 12,856 12,856 12,856 12,856 12,856 12,856 12,856 12,856 12,856	Wells, sucker rod ocket for oil, J. H. Bair	212,831 212,803 212,891 212,822 212,888 212,804 . 7,069 . 7,055 . 7,071 y 7,072 . 7,062 . 7,063 . 7,063 . 7,066 . 7,055 . 7,055 . 7,055
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,805 12,805 12,805 12,816 12,856 12,815 12,824 12,855 12,843 12,855 12,843 12,855 12,843 12,856 12,843 12,857 13,006	Wells, sucker rod ocket for oil, J. H. Bair	212,831 212,832 212,891 212,802 212,802 212,802 212,804 . 7,009 . 7,050 . 7,070 . 7,060 . 7,050
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21: Indicator, F. N. Chase	12,878 12,789 12,800 12,835 13,015 12,836 12,902 12,850 12	Wells, sucker rod ocket for oil, J. H. Bair	212,831 212,893 212,891 212,892 212,892 212,892 212,898 212,804 - 7,066 - 7,071 - 7,072 7,060 - 7,055 - 7,077 - 7,073
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,805 13,015 13,015 12,848 12,902 12,850 12,848 12,902 12,850 12,851 12,852 12,853 12,853 12,853 12,853 12,853 12,853 12,853 12,855	Wells, sucker rod ocket for oil, J. H. Bair	212,831 212,832 212,891 212,892 212,892 212,892 212,898 212,804 - 7,069 - 7,055 - 7,071 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060 - 7,060
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21: Indicator, F. N. Chase. 21: Injector for beer kegs, salt, J. C. G. Hupfel. 22: Insecticide, J. C. Benton. 21: Iron, galvanizing and tinning, Wahl & Eltonhead. 21: Iron, galvanizing and tinning, Wahl & Eltonhead. 21: Ironing table, S. W. Kilbourne. 21: Jewelry, sprig work for, L. Heckmann. 21: Knob, sheet metal, II. A. Matthews. 21: Lamp chimneys, etc., machine for flaring and crimping, R. Hemingray. 21: Last maker's guide, J. Kimball. 21: Lasting machine, S. E. Mower. 21: Lasting machine, S. E. Mower. 21: Lasting machine, II. G. Thompson. 21: Lead fumes, collecting waste, G. T. Lewis. 21: Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21: Lifting handle. chest or box, W. Bachtenkirch. 21: Lock, J. J. Dinnan. 21: Lock, W. I. Ludlow. 21: Lock, W. H. Taylor. 21: Mask, smoke excluding, G. Neally. 22: Meclanical medium, II. J. Stein. 21: Middlings purifier, E. S. Bartholomew. 21: Milk cooler, L. B. Austin. 22: Milk cooler, L. B. Austin. 22: Milk cooler, L. B. Austin. 22: Milk cooler, L.	12,878 12,789 12,800 12,835 12,905 12,905 12,905 12,902 12,815 12,902 12,815 12,952 12,815 12,824 12,956 12,815 12,824 12,956 12,817 12,809 12,817 12,809	Wells, sucker rod ocket for oil, J. H. Bair	212,831 212,836 212,897 212,897 212,898 212,89
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 21 Insecticide, J. C. Benton. 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Iron galvanizing and tinning, Wahl & Eltonhead. 21 Ironing table, S. W. Kilbourne. 21 Jewelry, sprig work for, L. Heckmann. 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for ffaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (r). Last maker's guide, J. Kimball. 21 Lasting machine, S. E. Mower. 21 Lasting machine, H. G. Thompson. 21 Latch, W. I. Ludlow. 21 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, W. I. Ludlow. 21 Lock, W. I. Ludlow. 21 Lock, W. H. Taylor. 21 Mask, smoke excluding, G. Neally. 21 Measuring lumber, device for, E. Neary. 21 Mechanical medium, H. J. Stein. 21 Middings purifer, E. S. Bartholomew. 22 Milk cooler, L. B. Austin. 21 Motor, J. Plattenburg. 22 Motor, J. Plattenburg. 23 Motor, J. Plattenburg. 24 Motor, J. Plattenburg. 25 Motor, J.	12,878 12,789 12,800 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,852 12,852 12,855 12	Wells, sucker rod ocket for oil, J. H. Bair	212,831 212,838 212,839 212,839 212,839 212,838 212,834 212,838 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,835 12,935 12,935 12,945 12,945 12,855 12,843 12,951 12,952 12,851 12,952 12,851 12,953 12,851 12,852 12,853	Wells, sucker rod ocket for oil, J. H. Bair Whiffilteree plate, H. Keyes Whip rolling nachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Gille, Wahl Brothers. Laundry soap, Colgate & Co	212,831 212,803 212,801 212,802 212,804 212,80
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 21 Insecticide, J. C. Benton. 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Iron galvanizing and tinning, Wahl & Eltonhead. 21 Ironing table, S. W. Kilbourne. 21 Jewelry, sprig work for, L. Heckmann. 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for flaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (r). Last maker's guide, J. Kimball. 22 Lasting machine, H. G. Thompson. 21 Lasting machine, H. G. Thompson. 21 Latch, W. I. Ludlow. 22 Lead fumes, collecting waste, G. T. Lewis. 21 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, J. J. Dinnan. 22 Lock, W. I. Ludlow. 21 Lock, W. I. Ludlow. 21 Lock, W. H. Taylor. 21 Mask, smoke excluding, G. Neally. 22 Measuring lumber, device for, E. Neary. 21 Meclianical medium, H. J. Stein. 21 Middings purifier, E. S. Bartholomew. 22 Milk cooler, L. B. Austin. 21 Motor, J. Plattenburg. 22 Music leaf turner, O. H. Goodwin. 22 Oil cloth, metallic blinding strip for, C. E. Marshall 21 Oil press mat, Perkins & Baker. 21	12,878 12,789 12,800 12,805 12,805 12,805 12,805 12,805 12,805 12,816 11,855 12,824 12,856 12,843 12,851 12,855 12,843 12,851 12,855 12,843 12,851 12,855 12,843 12,851 12,857 12,867 12,877 12,877	Wells, sucker rod ocket for oil, J. H. Bair	212,831 212,832 212,839 212,839 212,839 212,838 212,804 7,059 7,705 7,706 7,70
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,805 12,805 12,805 12,805 12,806 11,902 12,805 12,816 11,902 12,805 12,817 12,805 12,818 12,908 12,818 12,908 12,818 12,908 12,818 12,908 12,818 12,908 12,818 12,908 12,818 12,908 12,818 12,908 12,908 12,908 12,909 12	Wells, sucker rod ocket for oil, J. H. Bair Whimherree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co. Glue, Wahl Brothers Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Ex tract Company. Medical compound for plasters, W. J. Brown Medical compound J. R. Mathewson & Son Medicinal preparation, Pond's Extract Company. Metals, B. W. Baldwin. Mixed oil paints ready for use, Chicago White Leac and Oil (Company.	212,831 212,838 212,839 212,821 212,821 212,822 212,838 212,804  7,0629 7,077 7,072 7,062 7,063 7,077 1,077
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 21 Insecticide, J. C. Benton. 22 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Ironing table, S. W. Kilbourne. 21 Jewelry, sprig work for, L. Heckmann. 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for flaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin(r). 21 Lasting machine, S. E. Mower. 21 Lasting machine, H. G. Thompson. 21 Lasting machine, H. G. Thompson. 21 Latch, W. I. Ludlow. 22 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, J. J. Dinnan. 22 Lock, W. I. Ludlow. 21 Lock, W. I. Ludlow. 21 Lock, W. H. Taylor. 21 Mask, smoke excluding, G. Neally. 22 Measuring lumber, device for, E. Neary. 21 Mechanical medium, H. J. Stein. 21 Middings purifier, E. S. Bartholomew. 22 Music leaf turner, O. H. Goodwin. 22 Music leaf turner, O. H. Goodwin. 22 Music leaf turner, O. H. Goodwin. 22 Chock, M. et alle binding strip for, C. E. Marshall 21 Oil press mat, Perkins & Baker. 22 Packing, refrigerator door, H. W. Cass. 22 Packing,	12,878 12,789 12,800 12,805 12,805 12,805 12,805 12,805 12,805 12,816 11,902 12,855 12,843 12,851 12,855 12,843 12,851 12,957 13,006 12,008 12,008 12,008 12,008 12,009 12,008 12,009 12	Wells, sucker rod ocket for oil, J. H. Bair Whiffilteree plate, H. Keyes Whip rolling nachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS  Ales, W. A. Miles & Co. Blood purifying medicines, A. Seidel & Co. Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer. Cigars, C. Upmann. Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Gelluc, Wahl Brothers. Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Ex tract Company. Medical compound, J. R. Mathewson & Son Medicinal preparation, Pond's Extract Company. Medical compound, J. R. Mathewson & Son Medicinal preparation, Pond's Extract Company. Metals, B. W. Baldwin Mixed oll paints ready for use, Chicago White Leac and Oil Company. Ointments, J. L. Standart Plug smoking and chewing tobacco, H. M. Cochrar	212,831 212,832 212,839 212,839 212,838 212,804 . 7,069 . 7,055 . 7,071 . 7,062 . 7,063 . 7,063 . 7,076 . 7,077 . 7,073 . 7,076 . 7,076 . 7,076 . 7,076 . 7,077 . 7,077 . 7,070 . 7,076 . 7,076 . 7,077 . 7,077 . 7,076 . 7,076 . 7,076 . 7,077 . 7,076 . 7,076 . 7,077 . 7,077 . 7,076 . 7,076 . 7,077 . 7,076 . 7,076 . 7,076 . 7,077 . 7,076 . 7,07
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,805 12,805 12,905 12,905 12,905 12,905 12,906 12,906 12,807 12,807 12,807 12,807 12,807 12,807 12,807 12,807 12,807 12,807 12,807 12,807 12,807 12,807	Wells, sucker rod ocket for oil, J. H. Bair Whiffhetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wabl Brothers. Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Ex tract Company Medical compound, J. R. Mathewson & Son Medicial compound, J. R. Mathewson & Son Medicial preparation, Pond's Extract Company. Medical, B. W. Baldwin. Mixed oil paints ready for use, Chicago White Leac and Oil Company. Ointments, J. I. Standart	212,831 212,831 212,832 212,821 212,822 212,828 212,804  - 7,062 - 7,077 - 7,070 - 7,0
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,835 12,905 12,905 12,905 12,905 12,905 12,905 12,906 12,907 12,809 12,809	Wells, sucker rod ocket for oil, J. H. Bair Whiffiletree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langler Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Gille, Wahl Brothers. Laundry soap, Colgate & Co	212,831 212,832 212,839 212,839 212,838 212,804,7,059,7,057,7,059,7,077,7,073,7,073,7,074,7,074,7,075,7,07
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,805 12,805 12,905 12,905 12,905 12,905 12,815 12,906 12,855 12,815 12,821 12,855 12,855 12,843 12,851 12,956 12,855 12,843 12,851 12,956 12,855 12,843 12,851 12,956 12,855 12,843 12,851 12,956 12,855 12,843 12,850 12,851 12,956 12,855 12	Wells, sucker rod ocket for oil, J. H. Bair Whiffhetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Ex tract Company. Medical compound, J. R. Mathewson & Son. Medicinal preparation, Pond's Extract Company. Medical compound, J. R. Mathewson & Son. Medicinal preparation, Pond's Extract Company. Metals, B. W. Baldwin. Mixed oil paints ready for use, Chicago White Leac and Oil Company. Ointments, J. J. Standart. Plug smoking and chewing tobacco, H. M. Cochrar Pure Norwegian cod liver oil, Faulkner & Craightil Rivets, washers, burrs, and the like articles of cop	212,831 212,803 212,801 212,802 212,804 212,80
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,805 12,805 12,905 12,905 12,905 12,905 12,815 12,902 12,815 12,824 12,825 12	Wells, sucker rod ocket for oil, J. H. Bair Whiffiletree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Giue, Wahl Brothers. Laundry soap, Colgate & Co. Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Ex tract Company. Medical compound, J. R. Mathewson & Son Medicinal preparation, Pond's Extract Company. Medical compound, J. R. Mathewson & Son Medicinal preparation, Pond's Extract Company. Medical paints ready for use, Chicago White Leac and Oil Company. Ointments, J. L. Standart Plug smoking and chewing tobacco, H. M. Cochrar Pure Norwegian cod liver oil, Faulkner & Craighill Rivets, washers, burrs, and the like articles of cop per and brass, Plume & Atwood Manf. Co. Spectacles and eyeglasses, Clapp, Young & Co.	212,831 212,832 212,839 212,839 212,838 212,834,7,639,7,035,7,030
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,805 12,806 12,906 12,906 12,906 12,906 12,907 12,806 12,906 12,806 12,906 12,806 12,806 12,806 12,806 12,807 12,806 12	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer. Cigars, C. Upmann. Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros. & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills. G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Ex tract Company. Medical compound, J. R. Mathewson & Son. Medicinal preparation, Pond's Extract Company. Medical compound, J. R. Mathewson & Son. Medicinal preparation, Pond's Extract Company. Medical compound, J. R. Mathewson & Son. Medicinal preparation, Pond's Extract Company. Medical compound for plasters, W. J. Brown Mixed oil paints ready for use, Chicago White Lead and Oil Company. Ointments, J. L. Standart Plug smoking and chewing tobacco, H. M. Cochrar Pure Norwegian cod liver oil, Faulkner & Craightill Rivets, washers, burrs, and the like articles of cop per and brass, Plume & Atwood Manf. Co. Satinets and cassimercs, F. Glazier Sauces, J. Lusk & Co.	212,831 212,832 212,839 212,839 212,838 212,804 . 7,069 . 7,055 . 7,071 . 7,072 . 7,060 . 7,055 . 7,077 . 7,073 . 7,076 . 7,076 . 7,077 . 7,070 . 7,076 . 7,077 . 7,077 . 7,070 . 7,076 . 7,076 . 7,077 . 7,077 . 7,070 . 7,076 . 7,077 . 7,077 . 7,070
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 21 Insecticide, J. C. Benton 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Ironing table, S. W. Kilbourne 21 Jewelry, sprig work for, L. Heckmann 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for flaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (r) 21 Last maker's guide, J. Kimball 21 Lasting machine, S. E. Mower. 22 Lasting machine, H. G. Thompson 21 Latch, W. I. Ludlow 21 Latch, W. I. Ludlow 22 Lead furnes, collecting waste, G. T. Lewis. 22 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, J. J. Dinnan 21 Lock, W. I. Ludlow 22 Lock, W. H. Taylor 22 Mask, smoke excluding, G. Neally 22 Measuring lumber, device for, E. Neary. 21 Mask, smoke excluding, G. Neally 21 Meclianical medium, H. J. Stein. 21 Middlings purifier, E. S. Bartholomew 22 Milk cooler, L. B. Austin 21 Motor, J. Plattenburg. 21 Motor, J. Plattenburg. 21 Motor, J. Plattenburg. 22 Music leaf turner, O. H. Goodwin 22 Mailings on panels and other surfaces, reproducing oil, H. Boßaerts 21 Paghock, H. Budd 22 Paner, M. Newton. 21 Paper folding machine, W. Spalckhaver. 21 Paper folding machine, W. Spalckhaver. 21 Paper folding machine, A. W. Moore 22 Paper, M. Newton. 21 Paper folding machine, A. W. Moore 22 Paper guip from wood, S. M. Allen 22 Paper guip from paratus for, E. J. Muybridge 212,864, 21 Pano, pedal, W. J. Becker. 22	12,878 12,789 12,800 12,805 12,806 12,906 12,906 12,906 12,906 12,907 12,806 12,906 12,806 12,906 12,806 12,806 12,806 12,806 12,807 12,806 12	Wells, sucker rod ocket for oil, J. H. Bair Whiffhetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer. Cigars, C. Upmann. Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Ex tract Company. Medical compound, J. R. Mathewson & Son. Medicinal preparation, Pond's Extract Company. Medical compound, J. R. Mathewson & Son. Medicinal preparation, Pond's Extract Company. Metals, B. W. Baldwin. Mixed oil paints ready for use, Chicago White Lead and Oil Company. Ointments, J. J. Standart. Plug smoking and chewing tobacco, H. M. Cochrar Pure Norwegian cod liver oil, Faulkner & Craightil Rivets, washers, burrs, and the like articles of cop per and brass, Plume & Atwood Manf. Co. Satinets and cassimercs, F. Glazier Sauces, J. Lusk & Co. Spectacles and eyeglasses, Clapp, Young & Co. Toilet powders, R. M. Hobbs Toilet preparations, Pond's Extract Company	212,831 212,832 212,839 212,839 212,838 212,804 . 7,069 . 7,055 . 7,071 . 7,072 . 7,060 . 7,055 . 7,077 . 7,073 . 7,076 . 7,076 . 7,077 . 7,070 . 7,076 . 7,077 . 7,077 . 7,070 . 7,076 . 7,076 . 7,077 . 7,077 . 7,070 . 7,076 . 7,077 . 7,077 . 7,070
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,805 12,805 12,805 12,805 12,805 12,805 12,816 11,902 12,855	Wells, sucker rod ocket for oil, J. H. Bair Whiffiletree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Kanuss Blood purifying medicines, A. Seidel & Co. Blood purifler and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard. Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Ex tract Company. Medical compound, J. R. Mathewson & Son Medicinal preparation, Pond's Extract Company. Medical paints ready for use, Chicago White Leav and Oil Company. Ointments, J. L. Standart Plug smoking and chewing tobacco, H. M. Cochrar Pure Norwegian cod liver oil, Faulkner & Craighill Rivets, washers, burrs, and the like articles of cop per and brass, Plume & Atwood Manf. Co. Satinets and cassimercs, F. Glazier Sauces, J. Lusk & Co. Spectacles and eyeglasses, Clapp, Young & Co. Toilet powders, R. M. Hobbs Toilet preparations, Pond's Extract Company	212,831 212,831 212,832 212,839 212,838 212,834 . 7,839 . 7,039 . 7,030 . 7,03
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,805 12	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, c. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wabl Brothers. Laundry soap, Colgate & Co	212,831 212,831 212,832 212,831 212,832 212,834 - 7,063 - 7,073 - 7,073 - 7,073 - 7,073 - 7,073 - 7,074 - 1,083 - 7,084 - 7,084 - 7,084 - 7,084
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson 21 Indicator, F. N. Chase	12,878 12,789 12,800 12,805 12	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer. Cigars, C. Upmann. Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros. & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Extract Company. Medical compound, J. R. Mathewson & Son. Medicinal preparation, Pond's Extract Company. Medical compound, J. R. Mathewson & Son. Medicinal preparation, Pond's Extract Company. Metals, B. W. Baldwin. Mixed oil paints ready for use, Chicago White Leavand Oil (company. Ointments, J. J. Standart. Plug smoking and chewing tobacco, H. M. Cochrar Pure Norwegian cod liver oil, Faulkner & Craightill Rivets, washers, burrs, and the like articles of copper and brass, Plume & Atwood Manf. Co. Spectacles and eyeglasses, Clapp, Young & Co. Toilet powders, R. M. Hobbs Toilet preparations, Pond's Extract Company  DESIGNS. Boxes, A. Wuensch Carpet, J. Forrester Carpet, J. Campbell.	212,831 212,831 212,832 212,839 212,834 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson	12,878 12,789 12,800 12,805 12,806 12,807 12,806 12,807 12,806 12,806 12,807 12,806 12,807 12,806 12,806 12,807 12,806 12	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, c. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros. & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co	212,831 212,831 212,832 212,831 212,832 212,834 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 21 Insecticide, J. C. Benton 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Ironing table, S. W. Kilbourne 21 Jewelry, sprig work for, L. Heckmann 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for fiaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (r) 21 Last maker's guide, J. Kimball 21 Lasting machine, S. E. Mower. 21 Lasting machine, H. G. Thompson 21 Latch, W. I. Ludlow 22 Lead fumes, collecting waste, G. T. Lewis. 21 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle. chest or box, W. Bachtenkirch. 21 Lock, W. I. Ludlow 21 Lock, J. J. Dinnan 21 Lock, W. I. Ludlow 22 Lock, W. H. Taylor. 21 Mask, smoke excluding, G. Neally 21 Measuring lumber, device for, E. Neary. 21 Mechanical medium, H. J. Stein. 21 Middings purifier, E. S. Bartholomew 22 Milk cooler, L. B. Austin. 21 Middings purifier, E. S. Bartholomew 22 Milk cooler, L. B. Austin. 21 Motor, J. Plattenburg. 22 Music leaf turner, O. H. Goodwin. 21 Oil cloth, metallic binding strip for, C. E. Marshall 21 Oil press mat, Perkins & Baker. 22 Packing, refrigerator door, H. W. Cass. 21 Padlock, H. Budd. 22 Paintings on panels and other surfaces, reproducing oil, H. Boßaerts 22 Paper, M. Newton. 21 Paper folders, pasting mechanism for, S.D. Tucker	12,878 12,789 12,800 12,805 12	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros. & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills. G. W. Folts Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue. Wahl Brothers. Laundry soap, Colgate & Co	212,831 212,832 212,839 212,839 212,834 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 27 Insecticide, J. C. Benton 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Ironing table, S. W. Kilbourne 21 Jewelry, sprig work for, L. Heckmann 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for flaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (r) 21 Last maker's guide, J. Kimball 21 Lasting machine, S. E. Mower. 22 Lasting machine, H. G. Thompson 21 Latch, W. I. Ludlow 21 Latch, W. I. Ludlow 22 Lead fumes, collecting waste, G. T. Lewis. 22 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, J. J. Dinnan. 22 Lock, W. H. Taylor. 23 Mask, smoke excluding, G. Neally. 24 Measuring lumber, device for, E. Neary. 25 Meclianical medium, H. J. Stein. 21 Middlings purifier, E. S. Bartholomew. 26 Milk cooler, L. B. Austin. 21 Motor, J. Plattenburg. 21 Motor, J. Plattenburg. 22 Music leaf turner, O. H. Goodwin. 23 Music leaf turner, O. H. Goodwin. 25 Packing, refrigerator door, H. W. Cass. 27 Packing, refrigerator door, H. W. Cass. 27 Paper folding machine, W. Spalckhaver. 27 Paper folding machine, W. Spalckhaver. 27 Paper folding machine, W. Spalckhaver. 27 Paper folding machine, A. W. Moore 27 Paper pulp from wood, S. M. Allen. 27 Paper pulp from wood, S. M. Allen. 27 Paper pulp from wood, S. M. Allen. 27 Paper folding machine, A. W. Moore 27 Paper pulp from wood, S. M. Allen. 27 Paper folding machine, A. W. Moore 27 Paper, M. Reveton. 27 Paper folders, pasting mechanism for, S.D. Tucker 17 Paper folders, pasting mechanism for, S.D. Tucker 17 Paper folders, pasti	12,878 12,789 12,800 12,805 12,805 12,905 12,805 12,905 12,815 12,902 12,815 12,824 12,825 12,825 12,831 12,936 12,831 12,936 12,831 12,936 12,831 12,936 12,831 12,936 12,831 12,936 12,831 12,936 12,831 12,936 12,831	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, c. Upmann Cigars, c. Upmann Cigars, c. Upmann Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros. & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co	212,831 212,832 212,831 212,832 212,832 212,834 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 21 Insecticide, J. C. Benton 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Ironing table, S. W. Kilbourne 21 Jewelry, sprig work for, L. Heckmann 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for fiaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (r) 21 Last maker's guide, J. Kimball 22 Lasting machine, S. E. Mower. 21 Lasting machine, H. G. Thompson 21 Lather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle. chest or box, W. Bachtenkirch. 21 Lock, W. I. Ludlow 21 Lock, J. J. Dinnan 21 Lock, W. H. Taylor. 21 Mask, smoke excluding, G. Neally 21 Measuring lumber, device for, E. Neary. 21 Mechanical medium, H. J. Stein. 21 Middings purifier, E. S. Bartholomew. 21 Milk cooler, L. B. Austin. 21 Motor, J. Plattenburg. 22 Music leaf turner, O. H. Goodwin. 21 Oil cloth, metallic binding strip for, C. E. Marshall 21 Oil press mat, Perkins & Baker. 21 Packing, refrigerator door, H. W. Cass. 21 Pagner folders, pasting mechanism for, S.D. Tucker 21 Paper	12,878 12,789 12,800 12,805 12	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros. & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills. G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wabl Brothers. Laundry soap, Colgate & Co	212,831 212,832 212,839 212,839 212,839 212,830 212,804 212,80
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 27 Insecticide, J. C. Benton 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Ironing table, S. W. Kilbourne 22 Jewelry, sprig work for, L. Heckmann 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for flaring and crimping, R. Ilemingray. 21 Lantern, J. H. Irwin (r) 21 Last maker's guide, J. Kimball 21 Lasting machine, S. E. Mower. 22 Lasting machine, H. G. Thompson 21 Latch, W. I. Ludlow 22 Lead fumes, collecting waste, G. T. Lewis. 22 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, J. J. Dinnan 22 Lock, W. H. Taylor. 21 Last, smoke excluding, G. Neally. 21 Mask, smoke excluding, G. Neally. 22 Mechanical medium, H. J. Stein. 21 Middlings purifier, E. S. Bartholomew. 22 Music leaf turner, O. H. Goodwin. 22 Packing, refrigerator door, H. W. Cass. 21 Paglock, H. Budd. 22 Paper, M. Newton. 21 Paper folding machine, W. Spalckhaver. 21 Paper, M. Newton. 21 Paper folding machine, W. Spalckhaver. 21 Paper folding machine, A. W. Moore 21 Paper folding machine, A. W. Moore 21 Paper folders, pasting mechanism for, S.D. Tucker 12 Paper folders, pasting mechanism for, S.D. Tucker 12 Paper folding machine, A. W. Moore 21 Paper folders, pasting mechanism for, S.D. Tucker 12 Paper pulp from wood, S. M. Allen. 21 Paper, M. Newton. 21 Paper folders, pasting mechanism for, S.D. Tucker 12 Paper pulp from wood, S. M. Allen. 22 Paper, M. Newton. 21 Paper, M. Perkins & Weiser. 21 Paper, L. C. Rodier. 21 Paper, w. Perkins & Weiser. 21 Paper, w. Per	12,878 12,789 12,800 12,805 12,806 12,806 12,807 12,808	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer. Cigars, C. Upmann. Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co	212,831 212,832 212,839 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 21 Insecticide, J. C. Benton. 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Ironing table, S. W. Kilbourne. 21 Jewelry, sprig work for, L. Heckmann. 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for flaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (r). 21 Lasting machine, S. E. Mower. 22 Lasting machine, H. G. Thompson. 21 Lasting machine, H. G. Thompson. 21 Latch, W. I. Ludlow. 22 Lead fumes, collecting waste, G. T. Lewis. 22 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, J. J. Dinnan. 22 Lock, W. I. Ludlow. 22 Lock, W. I. Ludlow. 23 Lock, W. I. Ludlow. 24 Lock, W. H. Taylor. 25 Measuring lumber, device for, E. Neary. 21 Meclanical medium, H. J. Stein. 21 Middlings purifier, E. S. Bartholomew. 22 Milk cooler, L. B. Austin. 21 Motor, J. Plattenburg. 22 Music leaf turner, O. H. Goodwin. 23 Cill cloth, metallic binding strip for, C. E. Marshall 21 Oil press mat, Perkins & Baker. 21 Paglock, H. Budd. 22 Paglock, H. Budd. 22 Paglock, H. Budd. 22 Paper folding machine, W. Spalckhaver. 23 Paper folding machine, W. Spalckhaver. 24 Paper folding machine, W. Spalckhaver. 25 Paper folding machine, W. Spalckhaver. 26 Paper gand, W. J. Becker. 27 Paper and nut wrench, D. Fisher. 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser. 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser. 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser. 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser. 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser. 22 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser. 21 Pinchers for attaching s	12,878 12,789 12,800 12,805 12,805 12,805 12,805 12,805 12,805 12,816 11,902 12,855 12,818 12,855 12,818 12,855 12,818 12,855 12,818 12,855 12,818 12,855 12,818 12,855 12,818 12,855 12,818 12,855 12,818 12,855 12	Wells, sucker rod ocket for oil, J. H. Bair Whiffiletree plate, H. Keyes Whip roling nachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Kanuss Blood purifying medicines, A. Seidel & Co. Blood purifler and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard. Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Gidue, Wahl Brothers. Laundry soap, Colgate & Co. Medicated paper for water closet use, Pond's Ex tract Company. Medical compound, J. R. Mathewson & Son Medicial compound, J. R. Mathewson & Son Medicial preparation, Pond's Extract Company. Medical compound, J. R. Starte Company. Medical, B. W. Baldwin. Mixed oil paints ready for use, Chicago White Leav and Oil Company.  Ointments, J. L. Standart Plug smoking and chewing tobacco, H. M. Cochrar Pure Norwegian cod liver oil, Faulkner & Craighill Rivets, washers, burrs, and the like articles of cop per and brass, Plume & Atwood Manf. Co. Satinets and cassimercs, F. Glazier Sauces, J. Lusk & Co. Spectacles and eyeglasses, Clapp, Young & Co. Toilet powders, R. M. Hobbs  Toilet preparations, Pond's Extract Company  DESIGNS.  Boxes, A. Wuensch Carpet, J. Forrester Carpet, J. Grimshaw.  11,043, Handkerchief, A	212,831 212,832 212,839 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 21 Insecticide, J. C. Benton 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Ironing table, S. W. Kilbourne 22 Jewelry, sprig work for, L. Heckmann 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for flaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (r) 4 Last maker's guide, J. Kimball 21 Lasting machine, S. E. Mower. 22 Lasting machine, S. E. Mower. 22 Latch, W. I. Ludlow 21 Latch, W. I. Ludlow 21 Latch, W. I. Ludlow 22 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, W. I. Ludlow 21 Lock, W. H. Taylor. 21 Mask, smoke excluding, G. Neally. 21 Measuring lumber, device for, E. Neary. 21 Mechanical medium, H. J. Stein. 21 Middlings purifier, E. S. Bartholomew. 22 Milk cooler, L. B. Austin. 21 Motor, J. Plattenburg. 21 Music leaf turner, O. H. Goodwin. 22 Mainings on panels and other surfaces, reproducing oil, H. Boßaerts. 21 Paper, M. Newton. 21 Paper folding machine, W. Spalckhaver. 21 Paper golding machine, W. Spalckhaver. 21 Paper pulp from wood, S. M. Allen. 21 Paper pulp from wood, S. M. Allen. 21 Paper folding machine, A. W. Moore 21 Paper pulp from wood, S. M. Allen. 22 Paper, M. Newton. 22 Pinchers for attaching seam protectors, paper fasteners, etc., Rut	12,878 12,789 12,800 12,805 12	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros. & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills. G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wabl Brothers. Laundry soap, Colgate & Co	212,831 212,831 212,832 212,839 212,834 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 21 Insecticide, J. C. Benton 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Ironing table, S. W. Kilbourne 21 Jewelry, sprig work for, L. Heckmann 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for flaring and crimping, R. Ilemingray. 21 Lantern, J. H. Irwin (r) 21 Last maker's guide, J. Kimball 22 Lasting machine, S. E. Mower 21 Lasting machine, H. G. Thompson 21 Latch, W. I. Ludlow 22 Lead fumes, collecting waste, G. T. Lewis. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, J. J. Dinnan 22 Lock, W. I. Ludlow 22 Lock, W. I. Ludlow 22 Lock, W. I. Ludlow 23 Lock, W. I. Ludlow 24 Lock, W. H. Taylor 25 Measuring lumber, device for, E. Neary 27 Mechanical medium, H. J. Stein 21 Middlings purifier, E. S. Bartholomew 21 Milk cooler, L. B. Austin Motor, J. Plattenburg 22 Music leaf turner, O. H. Goodwin 22 Dailoth, metallic binding strip for, C. E. Marshall 26 Diloth, metallic binding strip for, C. E. Marshall 27 Diloth, metallic bindings frip for, C. E. Marshall 28 Dailoth, H. Boßaerts 21 Paper folding machine, W. Spalckhaver 21 Paper folding machine, W. Spalckhaver 21 Paper folding machine, W. Spalckhaver 22 Paper folding machine, A. W. Moore 21 Paper folding machine, W. Spalckhaver 22 Paper gand, W. J. Becker 21 Paper and nut wrench, D. Fisher 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser 21 Pinchers for attaching seam protectors, paper fasteners, etc., Rutz & Weiser 21 Pinchers for attaching seam protectors, paper fasteners,	12,878 12,789 12,800 12,805	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langle; Certain medicinal preparations, G. H. Schafer. Cigars, C. Upmann. Coffee, Sherman Bros, & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wahl Brothers. Laundry soap, Colgate & Co	212,831 212,831 212,832 212,839 212,834 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 27 Insecticide, J. C. Benton 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Iron, galvanizing and tinning, Wahl & Eltonhead 21 Ironing table, S. W. Kilbourne 21 Jewelry, sprig work for, L. Heckmann 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for flaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (c) 4 Lasting machine, S. E. Mower. 22 Lasting machine, S. E. Mower. 22 Lasting machine, H. G. Thompson 21 Latch, W. I. Ludlow 21 Latch work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle chest or box, W. Bachtenkirch. 21 Lock, J. J. Dinnan 21 Lock, W. H. Taylor. 21 Mask, smoke excluding. G. Neally 21 Measuring lumber, device for, E. Neary. 21 Misk cooler, L. B. Austin. 21 Motor, J. Plattenburg. 21 Motor, J. Plattenburg. 21 Motor, J. Plattenburg. 22 Music leaf turner, O. H. Goodwin. 22 Music leaf turner, O. H. Goodwin. 23 Misk cooler, L. B. Austin. 21 Packing, refrigerator door, H. W. Cass. 22 Padlock, H. Budd. 22 Packing, refrigerator door, H. W. Cass. 22 Pagling machine, A. W. Moore 21 Paper folding machine, W. Spalckhaver. 21 Paper folding machine, W. Spalckhaver. 21 Paper pulpfrom wood, S. M. Allen. 22 Paper, M. Newton. 22 Paper, M. Newton. 22 Paper, M. Newton. 23 Paper folding machine, W. Spalckhaver. 24 Paper pulpfrom wood, S. M. Allen. 25 Paper pulpfrom wood, S. M. Allen. 26 Paper pulpfrom wood, S. M. Allen. 27 Paper folding machine, A. W. Moore 27 Paper folding machine, A. W. Moore 28 Paper, M. Newton. 29 Paper, M. Newton. 21 Paper folding machine, A. W. Moore 29 Photographing objects in motion, method and apparatus for, E. J. Muybridge. 212,864, 22 Paper, M. Newton. 21 Paper folding machine, A. W. Moore 21 Paper pulpfrom wood, S. M. Allen. 21 Paper pulpfrom wood, S. M. Allen. 21 Paper folding machine, A. W. Moore 21 Pintner, seed, Ide & Post. 21 Pintning press, E. L. Gilman. 2	12,878 12,789 12,800 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,805 12,806 12	Wells, sucker rod ocket for oil, J. H. Bair Whiffiletree plate, H. Keyes Whip rolling nachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifler and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Gidue, Wahl Brothers Laundry soap, Colgate & Co	212,831 212,831 212,832 212,839 212,834 212,83
Hydrocarbon from substances which have been treated therewith, removing, W. Adamson. 21 Indicator, F. N. Chase. 21 Injector for beer kegs, salt, J. C. G. Hupfel 27 Insecticide, J. C. Benton 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Iron, galvanizing and tinning, Wahl & Eltonhead. 21 Ironing table, S. W. Kilbourne 22 Jewelry, sprig work for, L. Heckmann 22 Knob, sheet metal, H. A. Matthews. 21 Lamp chimneys, etc., machine for fiaring and crimping, R. Hemingray. 21 Lantern, J. H. Irwin (r) 21 Last maker's guide, J. Kimball 21 Lasting machine, S. E. Mower. 21 Lasting machine, H. G. Thompson 21 Latch, W. I. Ludlow 22 Lead fumes, collecting waste, G. T. Lewis. 23 Leather work, machine for opening and pressing seams in, G. W. Emerson et al. 21 Lifting handle, chest or box, W. Bachtenkirch. 21 Lock, W. I. Ludlow 22 Lock, J. J. Dinnan 22 Lock, W. H. Taylor. 23 Mask, smoke excluding, G. Neally 21 Measuring lumber, device for, E. Neary. 21 Mechanical medium, H. J. Stein. 21 Middings purifer, E. S. Bartholomew 22 Motor, J. Plattenburg. 22 Motor, J. Plattenburg. 23 Motor, J. Plattenburg. 24 Motor, J. Plattenburg. 25 Motor, J. Plattenburg. 26 Music leaf turner, O. H. Goodwin. 27 Oil cloth, metallic binding strip for, C. E. Marshall 26 Oil press mat, Perkins & Baker. 27 Packing, refrigerator door, H. W. Cass. 27 Packing, refrigerator door, H. W. Cass. 28 Paper pulp from wood, S. M. Allen. 27 Paper folders, pasting mechanism for, S.D. Tucker 21 Paper pulp from wood, S. M. Allen. 27 Paper pulp from wood, S. M. Allen. 27 Paper pulp from wood, S. M. Allen. 27 Paper folders, pasting mechanism for, S.D. Tucker 21 Paper folders, pasting mechanism for, S.D. Tucker 21 Paper pulp from wood, S. M. Allen. 21 Paper folders, pasting mechanism for, S.D. Tucker 21 Paper pulp from wood, S. M. Allen. 21 Paper folders, pas	12,878 12,789 12,800 12,805 12	Wells, sucker rod ocket for oil, J. H. Bair Whimfetree plate, H. Keyes Whip rolling nuachine, O. Bryant Wind wheel, C. V. Stevens Yarn winder, J. & T. A. Boyd Yoke strap, neck, H. Keyes.  TRADE MARKS.  Ales, W. A. Miles & Co. Baking powder, J. H. Knauss Blood purifying medicines, A. Seidel & Co. Blood purifying medicines, A. Seidel & Co. Blood purifer and fattening remedy, J. H. Langley Certain medicinal preparations, G. H. Schafer Cigars, C. Upmann Cigars, cigarettes, and smoking and chewing to bacco, A. Lichenstein & Bro. Cleansing preparation for removing stains, etc. Cauldwell & Hubbard Coffee, Sherman Bros. & Co. Collars and cuffs, G. B. Cluett, Bro. & Co. Dyspepsia powders and pills, G. W. Folts. Fever, ague, and liver pads, J. Fleming Gas stoves, W. W. Goodwin & Co. Glue, Wabl Brothers. Laundry soap, Colgate & Co	212,831 212,831 212,832 212,839 212,834 212,83

Cop tubes and holders, G. W. Dyer, Washington, D.C. R. Johnson 212,944 Drying apparatus, A. J. Reynolds, Chicago, Ill.

Quartz mill, D. H. Anderson. 212,829 Heating apparatus, J. S. Hull. Baltimore, Md.

Ragengine, E.D. G. Jones (r) 8,600 Hoof expander, C. H. Shepard, —... Refrigerator, J. R. Ludlow 212.808 D. C.
Road engine, H. H. Bridenthal, Jr. 212.839 Metal bars, machine for shaping, J. J. Capewell, Cheshire,

Conn. Rock chair spring. H. Gerrish ... 212,845 Sewing machine, J O'Neil, New York city.

Safety pin, H. II. Thayer ... 213,007 Shafthangers, H. D. Cone, Stockbridge, Mass.

Sash fastener, Ross & Fortmann ... 212,987 Steam bollers, G. D. Daly, Flatbush, N. Y.