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.

A Human Barometer.

The real relation between the human body and the weather scientifically explained.—One of the most valuable developments of modern science along the line of human necessity is the National Weather Bureau at Washington. Experience has shown that eighty-six per cent of the predictions of the signal service are accurate; and these predictions are unquestionably of the greatest advantage to the seaman, the agriculturist, and the entire commercial world. The service has proven its necessity by its usefulness, for in past times the facilities for foretelling atmospheric changes were meager indeed. The only indications our fathers had of coming changes in the weather were aching limbs, twingeing joints, or painful corns. These "indications," though crude, were usually correct, and hence naturally suggest the inquiry as to the relation between the human system and the weather. The body is unquestionably an excellent barometer. It foretells changes in the atmosphere long before they occur, and this fact has been taken advantage of by physicians, who, when all other agencies fail, prescribe a change of air, thus hoping the body may find an atmospheric condition better suited to its needs. And yet the real relation between the human body and the weather has never been fully understood, nor has there ever been, until now, a correct explanation of what rheumatism (which seems in league with the atmosphere) really is. It was originally thought by many to be a trouble in the joints, and as such was treated in the most strange, not to say ridiculous, manner. This theory became dispelled when the same trouble attacked the muscles, and the feeling then prevailed that it was purely a muscular disorder. But this idea was found to be too narrow, and now it is universally conceded that rheumatism is a blood disease. And what a terrible disease it is. It often comes without warning and prostrates the system with agony. Again, its beginning is gradual, and its growth slow. In its acute form it manifests itself in every conceivable shape and is always accompanied by intense pain. At one time it is inflammatory, at another neuralgic. Sometimes it assumes the form of gout, and again that of pleurisy or lumbago; but in whatever manner it appears it is terribly painful and always to be dreaded. The pain and annoyance of rheumatism are increased by its great danger, for it is liable to attack the brain or heart at any moment, thereby causing instant death. Indeed, nearly every case of heart disease with all its dreadful suddenness which has ever occurred, can be traced more or less directly to rheumatic causes. In its chronic form it stiffens the joints, contracts the muscles, undermines the health, and ruins the life. It frequently attacks men and women who are apparently in perfect health. Indeed, it is as greatly to be dreaded as any possible form of physical woe.

But, however severe its effects may be, the exact cause of this blood trouble has been an undecided question, and it is only within the past year that any decision upon the subject has been reached. In order to fully determine what the cause of rheumatic disorders really was, certain authorities sent letters of inquiry from Washington to the leading practicing physicians of the land, and these inquiries were responded to quite generally, thus furnishing data of great value to science and mankind. The views held by the doctors are of a varied nature, but so overwhelming a proportion hold to one belief as to leave but little doubt that it is the correct one. This belief, briefly stated, is that uric acid in the blood causes rheumatism, and that it is only by removing this poisonous acid that rheumatic or neuralgic troubles in all their terrible forms can be cured. This being true the important question arises: "How does this poisonous uric acid get into the blood, and how can it best be removed?" Uric acid is found in the blood because the kidneys are weakened and cannot throw it from the system. Restore the kidney and you restore the power that will force the uric acid from the system and thus banish the rheumatic agonies which it causes. This is reason; it is science. No one whose kidneys are in a perfect condition was ever troubled with rheumatism, and no rheumatic sufferer, however slight the pain may be, has perfect kidneys. The conclusion of this truth is inevitable: perfect kidneys mean freedom from rheumatism.

When rheumatism has manifested itself in any special part of the body, attempts have usually been made to treat that part of the body. As a result the pain has departed, but the disease has remained, lying subtly concealed and ready to breakout at some unexpected moment. Checking the pain in any single locality only scatters the disease through the system, when, if the seat of the disorder, which is the blood, were reached, a complete cure would be the result. The way, therefore, to expel this rank and poisonous acid before it assumes an inflammatory or chronic form is by keeping the kidneys in absolute health. This is no easy thing to do, and no means has, until within the past few years, been known which would successfully reach and affect these great organs. At last, however, scientists have discovered that the leaves of a tropical plant, previously but little known to science and unknown to medicine, possessed marvelous qualities adapted for the kidneys. These leaves have been skillfully combined in the remedy now known as Warner's Safe Kidney and Liver Cure. It is up to the present time, the only known preparation that acts so directly upon the kidneys as to remove all uric acid from the blood, and hence the cures it has been the means of performing are really very remarkable. Indeed, there are thousands of persons in America to-day who owe their restoration to health and entire freedom from rheumatism to this simple yet powerful remedy.

This theory as above explained finds its confirmation in the fact that when the kidneys have been cured, rheumatism is completely removed. This is not, of course, always accomplished instantly, for in a disease so subtle, death is often sudden and the cure slow, but under no other plan can any hope of permanent relief ever be found. There are hundreds of cases on record during the present winter of persons afflicted with rheumatic troubles of the worst order who have been entirely cured by following the theory above stated and using the remedy mentioned. Many of these persons had the very worst possible symptoms. Vague aches in different portions of the body were followed by agonies the most intense in some particular spot. Acute and throbbing pains succeeded each other and the coursing poisonous acid inflamed all the veins. Troubles which began with slight disorders increased to derangements the most serious. It is sad to think that all this suffering was endured when it could have been so easily relieved. Acting upon the theory and using the remedy above mentioned the kidneys could have been restored to their usual vigor, the uric poison expelled from the system the inflammation removed, and the pain entirely banished.

These are some of the real and scientific facts regarding rheumatism, attested by the highest authority, and they are, beyond question, the only correct ones ever brought forth. We are aware they are advanced ideas, but ten years hence they will be the accepted belief and practice of the world. If people suffer from rheumatic troubles in the future, and with these plain truths before them they certainly can blame no one but themselves.

Cotton Belting, Rubber Belting, Leather Belting, and all kinds of Steam Packing. Greene Tweed & Co., N.Y.

Brass or Malleable Iron Castings wanted for Climie's Museum Case (Lock or) Bolt. Address Andrew Climie, Ann Arbor, Mich.

Pure Water furnished Cities, Paper Mills, Laundries, Steam Boilers, etc., by the Multifold System of the Newark Filtering Co., 177 Commerce St., Newark, N. J.

100 New Lathes, Planers, Drills, Millers, etc. (light and heavy). Send for list. Kelly & Ludwig, 49 and 51 North Seventh St., Philadelphia, Pa.

Lehigh Valley Emery and Corundum Wheels and Grinding Machinery of all kinds. Please write for prices, stating sizes of wheels you use, etc. Lehigh Valley Emery Wheel Co., Lehighton, Pa.

Jas. F. Hotchkiss, 84 John St., N. Y. Send me your free book entitled "How to Keep Boilers Clean," containing useful information for steam users & engineers. (Forward above by postal or letter; mention this paper.)

For Sale.—Iron Planers, 2 x 8 feet; new. N. L. Sibley, Waltham, Mass.

Por't Forges. Special Sale Disc'ts. L. Hoffman & Co., Cleveland, O

Steel Stamps and Pattern Letters. The best made. J. F. W. Dorman, 21 German St., Baltimore. Catalogue free.

The New System of Bee Keeping.—Every one who has a farm or garden can keep bees on my plan with good profit. *Illustrated circular of full particulars free.* Address Mrs. Lizzie E. Cotton, West Gorham, Me.

Now Ready. Catalogue of Electrical Books; also general catalogue. E. & F. N. Spon, 446 Broome St., N. Y.

Abbe Bolt Forging Machines and Palmer Power Hammers a specialty. S. C. Forsaith & Co., Manchester, N.H.

Machinery for Light Manufacturing, on hand and built to order. E. E. Garvin & Co., 139 Center St., N. Y.

For Power & Economy, Alcott's Turbine, Mt. Holly, N. J.

Combination Roll and Rubber Co., 27 Barclay St., N. Y. Wringer Rolls and Moulded Goods Specialties.

For Mill Mach'y & Mill Furnishing, see illus. adv. p. 188.

Send for Pamphlet of Compilation of Tests of Turbine Water Wheels. Barber, Keiser & Co., Allentown, Pa.

Presses & Dies (fruit cans) Ayar Mach. Wks., Salem, N.J.

Latest Improved Diamond Drills. Send for circular to M. C. Bullock, 80 to 88 Market St., Chicago, Ill.

Wood-Working Machinery of Improved Design and Workmanship. Cordesman, Egan & Co., Cincinnati, O

Diamond Engineer, J. Dickinson, 64 Nassau St., N.Y.

Supplement Catalogue.—Persons in pursuit of information on any special engineering, mechanical, or scientific subject, can have catalogue of contents of the SCIENTIFIC AMERICAN SUPPLEMENT sent to them free. The SUPPLEMENT contains lengthy articles embracing the whole range of engineering, mechanics, and physical science. Address Munn & Co., Publishers, New York.

Split Pulleys at low prices, and of same strength and appearance as Whole Pulleys. Yocom & Son's Shafting Works, Drinker St., Philadelphia, Pa.

Malleable and Gray Iron Castings, all descriptions, by Erie Malleable Iron Company, limited, Erie, Pa.

Presses & Dies. Ferracute Mach. Co., Bridgeton, N. J.

List 27.—Description of 3,000 new and second-hand Machines, now ready for distribution. Send stamp for same. S. C. Forsaith & Co., Manchester, N.H., and N.Y. city.

Pure Nickel Anodes and Salts; pure Turkey Emery; Star Glue. Greene, Tweed & Co., 118 Chambers St., N. Y.

Presses, Dies, Tools for working Sheet Metals, etc. Fruit and other Can Tools. E. W. Bliss, Brooklyn, N. Y.

Improved Skinner Portable Engines. Erie, Pa.

For Pat. Safety Elevators, Hoisting Engines, Friction Clutch Pulleys, Cut-off Coupling, see Frisbie's ad. p. 173.

Mineral Lands Prospected, Artesian Wells Bored, by Pa. Diamond Drill Co. Box 423, Pottsville, Pa. See p. 173.

4 to 40 H. P. Steam Engines. See adv. p. 174.

The Berryman Feed Water Heater and Purifier and Feed Pump. I. B. Davis' Patent. See illus. adv., p. 174.

Draughtsman's Sensitive Paper. T. H. McCollin, Phila., Pa.

For the Garden and Farm.—A great variety of Seeds and Implements. Send for catalogue. Address R. H. Allen & Co., P. O. Box 376, New York city.

See Bentel, Margedant & Co.'s adv., page 205

C. B. Rogers & Co., Norwich, Conn., Wood Working Machinery of every kind. See adv., page 206.

Barrel, Key, Hogshead, Stave Mach'y. See adv. p. 205.

Blue Process Paper is made by Keuffel & Esser, 127 Fulton St., New York. Send for circular.

Renshaw's Ratchet for Square and Taper Shank Drills. The Pratt & Whitney Co., Hartford, Conn.

Telegraph, Telephone, Elec. Light Supplies. See p. 205.

50,000 Sawyers wanted. Your full address for Emerson's Hand Book of Saws (free). Over 100 illustrations and pages of valuable information. How to straighten saws, etc. Emerson, Smith & Co., Beaver Falls, Pa.

Eagle Anvils, 10 cents per pound. Fully warranted.

Peerless Colors for Mortar. French, Richards & Co., 410 Callowhill St., Philadelphia, Pa.

Elevators, Freight and Passenger, Shafting, Pulleys and Hangers. L. S. Graves & Son, Rochester, N. Y.

The Medart Pat. Wrought Rim Pulley. See adv., p. 206.

For Heavy Punches, etc., see illustrated advertisement of Hilles & Jones, on page 205.

Centrifugal Pumps, 100 to 35,000 gals. per min. See p. 205.

Steam Hammers, Improved Hydraulic Jacks, and Tube Expanders. R. Dudgeon, 24 Columbia St., New York.

Cope & Maxwell M'f'g Co.'s Pump adv., page 204.

For best low price Planer and Matcher, and latest improved Sash, Door, and Blind Machinery, Send for catalogue to Rowley & Hermance, Williamsport, Pa.

The only economical and practical Gas Engine in the market is the new "Otto" Silent, built by Schleicher, Schumm & Co., Philadelphia, Pa. Send for circular.

The Porter-Allen High Speed Steam Engine. Southwork Foundry & Mach. Co., 430 Washington Ave., Phil. Pa.

The Sweetland Chuck. See illus. adv., p 206.

Machine Knives for Wood-working Machinery, Book Binders, and Paper Mills. Also manufacturers of Soloman's Parallel Vise. Taylor, Stiles & Co., Riegelsville, N.J.

Electric Lights.—Thomson Houston System of the Arc type. Estimates given and contracts made. 631 Arch, Phil.

Common Sense Dry Kiln. Adapted to drying of all material where kiln, etc., drying houses are used. See p. 205.

Notes & Queries

HINTS TO CORRESPONDENTS.

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

Names and addresses of correspondents will not be 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 a reasonable time should repeat them. If not then published, they may conclude that, for good reasons, the Editor declines 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 SUPPLEMENT referred to in these columns may be had at this office. Price 10 cents each.

Correspondents sending samples of minerals, etc., for examination, should be careful to distinctly mark or label their specimens so as to avoid error in their identification.

(1) G. L. K. asks: 1. Can you give receipt for a good secret postal card ink? A. Use a dilute solution of pure cobalt chloride in water. 2. A receipt for ink that disappears in a few days? A. Use an ink prepared from iodide of starch. 3. A receipt for removing old paint from wagons, etc.? A. Use a strong alcoholic solution of potash, followed by a thorough rinsing in water. 4. Is it safe to try the following experiment, and will it work, namely: Light may be obtained instantly without the use of matches, and without the danger of setting things afire, thus: take an oblong vial of the whitest and clearest glass; put into it a piece of phosphorus about the size of a pea, upon which pour some olive oil heated to the boiling point, filling the vial about one-third full, and then seal the vial hermetically. To use it, remove the cork and allow the air to enter the vial and then recork it. The empty space in the bottle will then become luminous, and the light obtained will be equal to that of a lamp. A. Phosphorus should be handled with care, as the slightest friction will sometimes ignite dry phosphorus; the substance sometimes inflames spontaneously when not covered with water. The phosphorescent glow produced by these oil phosphorus lamps is very faint.

(2) W. H. B. says: Can you give me any simple method for granulating zinc for use in a chemical laboratory for reductions, etc.? I have tried melting the zinc which I have in sheets, about three thirty-seconds of an inch thick, and dropping it into water as it melts, but it is not satisfactory. The zinc should be about the size of small shot. A. Make a mixture of equal parts of talc, or soapstone and charcoal, in finest powder, and pour the melted metal, in a thin stream, with a quantity of this, contained in a tray. The tray should be constantly agitated so as to prevent the agglomeration of the metal. Zinc can thus be reduced to the size of small shot.

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

W. S. L.—Galena and lead carbonate in quartzose rock. Some of this ore probably contains much silver. An assay would be necessary to determine its value.—A. J. O.—Manganite of medium purity.—J. B. H.—It is a partly altered white silicious feldspar. Useful for pottery, etc.

English Patents Issued to Americans.

From February 28 to March 10, 1882, inclusive.

Boot lasting machine G. N. Copeland, Boston, Mass.
Bottle stopper. G. D. Dows, Boston, Mass.
Cotton opening and lapping machine, R. Kittson, Lowell, Mass.
Damper regulator V. H. Hallock, Brooklyn, N. Y.
Dynamo-electric machine. W. B. Sheridan, Cleveland, O.
Dynamo-electric machine. T. A. Edison (2), Menlo Park, N. J.
Electric generator, T. A. Edison, Menlo Park, N. J.
Electro magnets, G. Smith, Astoria N. Y.
Fur nap, manufacture of, W. E. Doubleday, N. Y. city.
Gas, manufacture of, T. B. Fogarty, Brooklyn, N. Y.
Hats, manufacture of, G. Yule, Newark, N. J.
Hanger for coats etc., T. M. Donald, Austin, Texas.
Indicator, steam engine G. H. Crosby Mass.
Lead tubes, manufacture of, E. W. Blatchford & Co., Chicago Ill.
Lock nuts, W. H. Paige, Springfield, Mass.
Locomotive engine. J. Swan *et al*, Montgomery, Ala.
Metal, extracting from ore, N. F. Evans, Philadelphia, Pa.
Motive power, F. Pool, Kanawha Va.
Motor apparatus, M. Rosenstock, New York city.
Nielo, imitation of, F. Beck, New York city.
Paper, manufacture of from cotton stalks, F. Wheaton, Brooklyn, N. Y.
Preventing shifting of cargoes in ships. E. H. Farrar, New Orleans, La.
Reaping machine, F. F. Kanne, Waterville, Minn.
Reaping machine, H. R. Allen, Indianapolis, Ind.
Reaping machine. Mr. Cochran Indianapolis, Ind
Reflectors, W. Wheeler, Mass.
Rock drills, A. Shedlock, New York city.
Rotary engines, Elastic Wheel and Manufacturing Company, Waynesborough, Va.
Safety pins, J. Jenkins, Montclair, N J.
Sewing machine, Morley Sewing Machine Company, Boston, Mass.
Ships, construction of. A. P. Bliven, New York city.
Staples, G. Smith, Chicago, Ill.
Starch, manufacture of. W. T. Jebb, Buffalo, N. Y.
Stone, artificial, A. Pelletier, Washington, D. C.
Vehicle, propulsion of, P. Collamore, Boston, Mass.
Ventilators, P. Mihan, Mass.
Wheel gearing, J. B. Tibbits, Troy, N. Y.

[OFFICIAL.]

INDEX OF INVENTIONS

FOR WHICH

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

March 14, 1882,

AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

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

Air compressor. J. B. Waring 254,851
Air compressor hydraulic, J. Bradley 254,915
Air cooling apparatus. R. S. Jennings 254,981
Alkaline solutions, purification of, Carey, Gaskell, Jr., & Hurter 254,918, 254,919
Animal trap. E. Emmert 254,943
Animal trap, A. W. Walker 255,059
Atomizer. P. Lochmann 254,988
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Axle box, car, T. F. Hemmich 254,971
Axle box, car. G. E. Yost 254,857
Axle box, vehicle wheel, J. T. Gardner 255,077
Axles, shafts, and spindles, pedestal, box, and bearing for T. F. Hemmich 254,970
Bag holder. Whitman & Brown 254,893
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Car coupling, W. W. Watkins 254,852
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Chopper. See Cotton chopper.
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Chuck, lathe, J. C. Stevens 255,046
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Coal, etc., method of and apparatus for breaking down or getting Smith & Moore 255,042
Collar and cuff. C. O. Kanouse 254,875
Colter, rolling, F. B. Hunt 255,081
Commode and slop jar, combined, S. A. Emery 254,942
Cooler. See Tire cooler.
Cordage and twine designed to be used in binding sheaves of grain, S. A. Skinner 255,040
Core box. C. H. Lewis 254,830
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Cotton chopper, J. M. Walden. 255,058
Coupling. See Car Coupling. Pipe coupling. Thill coupling.
Culinary vessel, J. W Fisher 254,947
Cultivator. W. J. Davidson 254,932
Curtain hook pin H. L. Judd 254,983
Cushion. See Laundry cushion.
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Cyclometer, J J. Morton 255,004
Dental hand piece. G. Rehfuss 255,020
Derrick, L. Duval 254,941
Desks. book rest attachment for school and other, J Dutton 254,940
Diamond cutting machine. F. Harkins 254,817
Dish washing machine. S. J. Anderson 254,898
Disinfecting waste pipes apparatus for. A. G. W. Rankin 255,019
Disintegrating corn husks etc., machine for, J. B. De Young 254,807
Distilling oil, process of and apparatus for. J. N. Martin 254,990
Ditching machine. S. F. & J. Morral 255,000
Dredge box for spices. etc., P. Diamond 254,808
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Furniture tuft and method of making the same, G Doolittle 254,936
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Mantle, adjustable, R. H. Gudgeon 254,868
Measure and tally. grain, T. F. Dodge 254,934
Measuring apparatus, rotary cloth, O. Huffman 254,874
Measuring line reel, E. G. McClure 254,881
Mechanical movement, C. A. Bentzen 254,907
Medicine chest and case, H. H. Peacock 254,838
Middlings purifier A. J. Seyler 255,036
Mill. See Grinding mill. Quartz mill.
Mill disk, L. Gathmann 254,814
Mole trap. W. S. Harmon 254,963
Motor. See Sewing machine motor.
Musical instruments, metallic reed for, W. Munroe 254,882
Needle eyes, machine for polishing, I. T. Smith 255,044
Numbering machine. W. P. Kidder 254,827
Organ bell attachment, R. W. Blake 254,910
Organ stop action, reed, B. French 254,950
Ox shoe. W. Pearce 255,014
Ozone generator. J. M. Davidson 254,930
Package for oysters, etc., C. L. Pond 255,017
Paint, water and fireproof roof, W. Sleeper 255,041
Pan. See Patty pan.
Paper bag machine. W. C. Cross 254,928
Paper box machine. W. J. Keefe 254,826
Paper box machine. C. Pruner 255,018
Paper, treating tan bark, etc., to render the same suitable for use in manufacturing. Guest & Court 254,958
Patty pan, J Smith 255,045
Pegging machine. Whittemore & Eppler Jr. 255,064
Pencil sharpener. F. F. Kullrich 254,986
Permutation lock. W. Rowe 255,027
Photo-engraving metallic plates, A. Michaud 254,998
Photographic camera, J. C. Merrell 254,997
Photographs, apparatus for vignetting, C. Seaver, Jr 254,845
Photographs, exhibiting, J. Dewe 254,806
Pile driver, A. L. Gilbert 254,955
Piles, machine for sawing off and tenoning. A. L. Gilbert 254,954
Pin. See Curtain pin hook. Safety pin.
Pipe coupling, J. C. Telfer 254,850
Piston, J. C. Hale 254,960
Piston head, H. D. Garrett 254,951
Planter. check row. O. L. Hall 254,961
Planter, seed, R. Hoffheins 254,818
Planters, furrow attachment for seed, I. P. Watson 255,062
Plastic compound, B. Harrass 254,964
Plow, F. Gautier 254,952
Plow attachment, T. P. Wise 255,066
Pocketbook. P. Schrader 255,089
Pocketbook, H. Walther 255,061
Power. See Foot power.
Press. See Baling press.
Print for transfer letters, W. H. Knox 254,877
Quartz mill, J. Day 254,805
Quilting machine, J. R. Sheldon 255,037
Rack. See Stove rack.
Radiator. steam, Andrews & Sunderland 255,071
Raft, timber, R. E. Terry 255,048
Rake. See Hay rake.
Railway curves, rail for, L. Brigham 254,793
Railway signal, H. Morris 255,001
Railway switch, J. B. Carey 254,797
Railway switch, safety, P. G. Hanson 254,870
Railway tie, J. Conley 254,802
Range boiler. kitchen, T. Hepe 254,973
Reel. See Measuring line reel.
Refrigerator, G. H. Hurd 254,976
Register and ottoman, comb'd, J A. Graham *et al.* 254,867
Regulator. See Tank and reservoir regulator.
Roach trap, M. Cohen 254,800
Rock drills, core lifter and guide for annular, S. W. Douglass 254,939
Roofing material, manufacturing, L. L. Sagendorph 255,088
Roofing material upon roofs, device for securing, L. L. Sagendorph 255,087
Rope clamp, adjustable, W. C. Burns 254,795
Safety pin, E. L. Paine 254,837
Salt evaporator. S. Dobbs 255,075
Salt, making, J. M. Laing 254,829
Salt, process of and apparatus for manufacturing, O. L. F. Browne 254,916
Sample displaying lid, W. H. Wheeler *et al* 255,063
Sample fastener for packages, W. R. Perry 254,840
Sash fastener, E. S Morton 255,003
Sash holder, J. V. Risk 255,025
Saw filing machine, F. Myers 255,007
Saw sharpening machine, W. H. Halladay 254,869
Screen. See Window screen.
Seams of sheet metal pipes, machine for closing down, W. A. Wheeler 254,891
Separator. See Grain separator.
Sewing machine. C. E. L. Holmes 254,975
Sewing machine attachment, G. Doolittle 254,935
Sewing machine for quilting, etc., F. N Cottle 254,926
Sewing machine motor, C. Nicholson 255,084
Sewing machine take up. G. W. Baker 254,788
Sewing machine tension device. G. W. Burgess 254,794
Sewing machines, looper for button hole. F. E. Schmidt 255,033
Sheet metal can, E. Norton 255,012
Sheet metal pipes, machine for forming circumferential crimps in, W A. Wheeler 254,890
Shirt, H. W. Messer 254,833
Shooting gallery, portable. J. Holahan 254,819
Sifter, revolving ash, E. G. Schultz 254,886
Signal. See Railway signal.
Skate, roller, S. Winslow 255,065
Sleigh, bob, F. Yager 254,856
Sliding and rolling gate. J. F. McCreary 254,994
Soap. neutral potash, W. J. Menzies 254,832
Soap powder and apparatus therefor, manufacture of. Wright & Bintliff 255,070
Spindle, W. T. Carroll 255,074
Spindles, etc., step and bush for, T. F. Hemmich. 254,972
Spittoon, A. B Nott 255,085
Spoon rest, C. W. Oleson 255,013
Steam boiler safety apparatus, R. Schwartzkopff. 254,887
Steering tow boats and tows, D. A. McDonald 254,995
Stopper. See Bottle stopper.
Stove heat fender, J. A. Cowles 254,803
Stove, lamp or gas, J. H. Irwin 254,979
Stove lifter. G. Dee 254,933
Stove rack, Woodard & Benedict 255,068
Strap. See Boot strap.
Straw cutter, J. W. Baughman 254,905
Stuffing box, steam engine, T. Walker 255,060
Sugar, refining and purifying, Remmers & Williamson 255,021
Sulky, J. V. Upington 255,055
Suspenders, button hole device for, B. J. Greely. 254,956
Suspensory bandage, J. Codman 254,799
Swing, portable. G. W. Mason 254,991
Switch. See Railway switch.
Tank and reservoir regulator, automatic, Q. N. Evans 254,944
Tanning, J. W. Hammond 254,962
Teeter, rocking. S. I. Russell 255,030
Telegraphic transmitter, automatic, E. L. Hutchinson 254,977
Telephone exchange circuit and apparatus, J. I. Sabin 255,031
Thill coupling, G. E. Wilson 254,894
Thrashing machine, straw carrier and shaker, J. Fahrney 254,810
Tie. See Railway tie.
Tire cooler, Ammerman, Baird & Foreman 254,897
Tobacco leaves, treating, J. D. Miller 254,999
Tobacco stem crushing machine, C. Hemje 254,969
Tool handle, T. Bolton 254,861
Toy railway train, F. W. Carpenter (r). 10,063
Toy savings bank, Shepard & Adams, Jr 255,090
Train boat, W. J. Little 254,878
Trap See Animal trap. Fish trap. Mole trap. Roach trap.
Tray, metallic, J. Taylor 254,849
Treadle, H. Kamprath 254,825
Truck and derrick, combined, A. Robinson 254,885
Truck, car, A. A., E., & H. Blackman 254,908
Truss. C. Cluthe 254,865
Tub. See Bath tub.
Universal joint for shafts, extensible. E. W. Ross 254,843
Valve, locomotive throttle, Hayes. Schlacks & Starkweather 254,872
Vapor burner. W. B. Blake 254,911
Vapor from liquid hydrocarbons, apparatus for, generating, H. F. Hayden 254,871
Vehicle, J E. Heller 254,873
Vehicle buffer, hydraulic J. B. G. A. Canet 254,917
Veneer, compressed, H. E. Moore 254,834
Ventilator, J. G. Pennycuick 254,884
Warp threads machine for drawing in, Sherman, Ingersoll & Moore 255,038
Watch, alarm, J. Bachner 254,901
Waters from condensers, apparatus for purifying the, J. B. Redmond 255,086
Well boring apparatus, F. Whelan 254,892
Well, tubular, R. E. Strait 255,092
Wells, temper screw for drilling. O. A. Knox 254,876
Wheat feeder, F J. Grow 254,957
Wheel See Wind wheel.
Window screen, H. C. Hart 254,965
Wind wheel, R. G. Kirkwood 254,985
Wire and clothes line tightener, C. H. Salisbury 255,033
Wire stretcher, C. H. Salisbury 255,032
Wood for floor coverings, etc., uniting, C. E. Rider 255,023
Work holder, G. R. Tyler 255,053
Wrench. See Chain wrench.
Yoke, neck, W. L. Colton 254,925

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Carpet, W. J. Gadsby 12,802
Carpet. H. Horan 12,806, 12,807
Carpet, W. L. Jacobs ..... 12,808 to 12,810
Carpet, D. G. Melville 12,812
Carpet, D. McNair 12,813
Toy pistol, T. Lloyd 12,811
Toy savings bank, Shepard & Adams, Jr 12,814
Type, font of printing. C. E. Heyer. 12,804, 12,805
Type, printing, H. H. Thorp 12,815, 12,816

TRADE MARKS.

Books, A. Ireland 9,186
Cement and adhesive liquid, N. L. Freese 9,185
Chocolate cakes, Swain, Earle & Co 9,189
Cigars, G. P. Lies & Co 9,195
Cigars and cigarettes. L. Ash & Co 9,192, 9,193, 9,196
Cigars, cigarettes, smoking and chewing tobacco, Goodwin & Co 9,194
Flour, W. S. Hills 9,197
Flour, D. L. Wing & Co ..... 9,200 to 9,203
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Medicine, Hogle Rock Oil Company 9,198
Oil, petroleum, Maverick Oil Company 9,188
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Soap, J. B. Williams & Co 9,190
Spool silk, G. W. Knight 9,187
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