

Notes & Queries

HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication. References to former articles or answers should give date of paper and page or number of question.

(8071) C. F. S. asks: In talking in a telephone, how does the sound get from one end of the line to the other? Does the sound travel or does it not? A. The sound is not carried on the wire from one telephone to the other. Sound waves strike the diaphragm of a transmitter, which vibrates under their impact.

(8072) J. McG. R. writes: A claims that a watch movement with ordinary steel balance, hairspring and fork, when inclosed in a steel case, either open face or hunting, can be held in the field of the most powerful dynamo or motor, without the movement becoming magnetized.

(8073) D. B. T. asks: Does the latent heat of a solid vary with its temperature? A. No. The latent heat of a solid is the quantity of heat required to melt it. This is not given to the solid except at the temperature at which it melts.

(8074) F. P. asks: 1. Would it be possible to run the electric motor in SUPPLEMENT No. 1195 for say 120 miles by putting in extra cells? A. We do not think it possible to run an electric vehicle under ordinary road conditions for 120 miles at a charge.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending FEBRUARY 19, 1901, AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

Table listing various inventions and their patent numbers. Includes items like Amalgamator, Ammonia derivatives, Animal trap, Arithmometers, Automobile boiler, Baif, etc., with corresponding patent numbers ranging from 668,282 to 668,337.

(Continued on page 141)

### WOOD or METAL Workers



Without Steam Power should use our Foot and Hand Power Machinery. Send for Catalogues. A—Wood-working Machinery, B—Lathes, etc.

**SENECA FALLS MFG. CO.**  
695 Water St., Seneca Falls, N.Y.

**ARMATURE WINDING, RIGHT AND LEFT HANDED.**—An important paper for all amateurs. 17 illustrations. SCIENTIFIC AMERICAN SUPPLEMENT, No. 1139, price 10 cents. For sale by Munn & Co. and all newsdealers. Send for catalogue.

### ENGINE & FOOT MACHINE SHOP OUTFITS

**LATHES** SEBASTIAN LATHE CO. CINCINNATI, O.

Foot and Power and Turret Lathes, Planers, Shapers, and Drill Presses. SHEPAARD LATHE CO., 183 W. 2d St., Cincinnati, O.

### THE HALL BRASS PIPE WRENCH.

A PERFECT TOOL WITH FRICTION GRIP.

Bushings for all sizes and shapes. Highly polished pipes made up without scar or injury.

For Circulars and Prices  
**WALWORTH MANUFACTURING CO.,**  
128 to 136 FEDERAL ST., BOSTON, MASS.

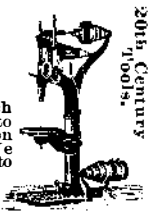
### Tells About Tools

A perfect encyclopedia of tools in use in every trade and profession with prices and discounts of same.

**Montgomery & Co.'s Tool Catalogue.**

510 pages, well printed. Copiously illustrated. A valuable book of reference for everybody interested in tools or machinery. Mailed for 25 cents, sent to **MONTGOMERY & CO.,** 105 Fulton St., New York City.

### There is never any question about the quality of a B. F. BARNES UPRIGHT DRILL.



The tool here illustrated is our 20-inch Drill, and we guarantee it to drill up to 1 inch in steel and 1 1/2 inch in cast iron at a good rate and without strain. We build larger sizes and will be glad to send full data on our entire line to interested people.

**B. F. BARNES CO.,** Rockford, Ill.

### CUYER'S PATENT DESULPHURIZING FURNACE.

Latest, Cheapest and Best. Takes the place of Heap or Stall Roasting. Saves time and money. Write for particulars.

**HENRY CUYER,** Casilla 514 LIMA, PERU, S. A.

### Presses for Sub-Press Work.

Five sizes. Sub-Presses and Tools to order.

Send for Circulars.

**BLAKE & JOHNSON,**  
P. O. Box 7, WATERBURY, CONN.

### Water Emery Tool Grinder

Has no pumps, no valves. No piping required to supply it with water. Always ready for use. Simplest in construction, most efficient in operation.

Send for catalogue and prices.  
**W. F. & JNO. BARNES CO.,**  
1999 Ruby St., Rockford, Ill.

### THE EUREKA CLIP

The most useful article ever invented for the purpose. Indispensable to Lawyers, Editors, Students, Bankers, Insurance Companies and business men generally. Book marker and paper clip. Does not mutilate the paper. Can be used repeatedly. In boxes of 100 for 25c. To be had of all booksellers, stationers and notion dealers, or by mail on receipt of price. Sample card, by mail, free. Manufactured by Consolidated Safety Pin Co., Box 124, Bloomfield, N. J.

### 12-inch Pipe cut off and Threaded with ease by one man and a FORBES PATENT DIE STOCK

Smaller sizes proportionately easy. Send for Catalogue.

**THE CURTIS & CURTIS CO.,**  
Range 1/2 in. R. & L. 6 Garden St., Bridgeport, Conn.

### "OLDS" GASOLINE ENGINES

ARE REMARKABLE FOR SIMPLICITY AND ECONOMY

Write for Prices.

**OLDS MOTOR WORKS,** 132 B Jeff. Ave., Detroit, Mich.

### ARMSTRONG'S No. 0 THREADING MACHINE

Can be attached to bench or post. Designed for threading the smaller sizes of pipe, iron or brass, also bolts. Has two speeds, one for pipe 1/2 to 1 inch; the other for pipe 1 1/4 to 2 inches, inclusive. Uses the regular Armstrong adjustable dies. Other attractive features. Send for particulars. **The Armstrong Mfg. Co.,** 139 Centre Street, New York. Bridgeport, Conn.

Vehicle, motor, D. N. Melvin.....	668,262
Vehicle, motor, G. L. Roby.....	668,218
Vehicle spring and hanger, G. T. Glover.....	668,443
Vehicle wheel, F. W. Morgan.....	668,384
Vehicle wheel, elastic tire, F. W. Morgan.....	668,385
Velocipede driving mechanism, Lane & Doney.....	668,379
Vending machine, W. Pitt.....	668,265
Vise, jeweler's hand, A. S. Koch.....	668,377
Vising machine, N. B. Ross.....	668,417
Wagon, platform, T. B. Benedict.....	668,434
Washing machine, K. Wiechers.....	668,365
Washing or cleaning apparatus, E. R. Edson.....	668,255
Water closet flushing device, J. W. Snider.....	668,589
Water gage, Garrels & Kimball.....	668,514
Water gage guard, Brooks & Fischer.....	668,325
Water heater, R. Smith.....	668,229
Water tube boiler, M. J. Burke.....	668,326
Weighing machine, A. H. Ganning.....	668,437
Well drilling apparatus, deep, C. D. Pierce.....	668,209
Wheel degenerating machine, J. Frey.....	668,287
Wheel bushing, C. Miller.....	668,383
Wheelwright's implement, M. M. May.....	668,449
Winding from rotating supplies, machine for, S. W. Wardwell, Jr.....	668,241
Window or door screen, J. M. Lindsay.....	668,564
Window screen, S. V. Merriman.....	668,534
Wire clamping and stretching tool, Dalton & Welsh.....	668,499
Wool, apparatus for treatment of, A. G. Dear.....	668,502
Wrench, W. Twigg.....	668,272
Wringer. See Clothes wringer.	

### DESIGNS.

Advertising card, F. E. Housh.....	34,120	34,123
Brake ring, E. E. Ziegler.....	34,111	34,111
Brick fire, J. S. Van Buren.....	34,105	34,105
Brick rest, J. S. Van Buren.....	34,106	34,106
Candy body, W. B. Long.....	34,100	34,100
Car wheel, W. B. Long.....	34,100	34,100
Clasp, hair, F. H. Buzzacott.....	34,093	34,093
Clothes pounder, G. N. Jameson.....	34,099	34,099
Cream whipper, P. F. Fell.....	34,098	34,098
Cycle frame, motor, H. Kalb.....	34,112	34,112
Decanter, A. De St. George.....	34,095	34,095
Door hanger pulley frame, J. H. Burkholder.....	34,102	34,102
Door hanger track, J. H. Burkholder.....	34,103	34,103
Engine base and shaft support, gasoline, R. M. Keating.....	34,110	34,110
Fabric, D. J. Seaman.....	34,118	34,118
Fabric, woven, J. T. Baron.....	34,119	34,119
Generator casing, E. P. Waggoner.....	34,109	34,109
Halter ring, J. Birgel.....	34,113	34,113
Hook, garment, C. Leib.....	34,094	34,094
Hook, harness hanger, Stagg & Spear.....	34,114	34,114
Land roller, R. W. Whitehurst.....	34,107	34,107
Pipe section, suspension, W. U. Griffiths.....	34,101	34,101
Scissors, shears, C. Smith.....	34,096	34,096
Seal remover, bottle, A. W. Stephens.....	34,097	34,097
Skate strap, W. H. Gay.....	34,115	34,115
Stop motion detector, Adolphson & Cashman.....	34,104	34,104
Water bag, C. W. Melneke.....	34,116	34,117

### TRADE MARKS.

Beer, lager, F. D. Radeke Brewing Company.....	35,922
Beverages, mixed spirituous, Williams & Newman.....	35,924
Bicycles and automobiles, American Bicycle Company.....	35,943
Boots and shoes, Friedman Bros. Shoe Company.....	35,908
Boots and shoes, Milford Shoe Company.....	35,909
Boots and shoes, Sanger Brothers.....	35,910
Champagne wine, A. Constan & Cie.....	35,923
Chemical solvents for guns and oils, G. A. Alden & Company.....	35,931
Corn, sugar, Mount Morris Preserving Company.....	35,925
Emulsion, W. J. F. Geary.....	35,920
Files and hand tools, American-Swiss File and Tool Company.....	35,942
Food, certain named, C. E. Bevan.....	35,926
Hammocks, I. E. Palmer.....	35,915
Hats, helmets, and headwear, Borrowood Syndicate.....	35,906
Hose, fabric, Eureka Fire Hose Company.....	35,916
Incandescent lights and their parts and accessories and mantles, Welsbach Light Company.....	35,936
Insecticide compounds, D. M. Dunne.....	35,917
Keys, instruments, automatic playing devices for, M. Clark.....	35,934
Knit fabric, certain named, J. Holmes.....	35,913
Leather, grease for currying and tanning, Kehew-Bradley Company.....	35,929
Manures, fertilizers, and liquids for spraying plants, Chemische Fabrik Rhenania Medical tonics, Mass & Wallstein.....	35,930
Medical tonics, Mass & Wallstein.....	35,921
Ointment, H. Metzger.....	35,918
Packing house products, certain named, Cudahy Packing Company.....	35,927
Paints, varnishes, and fillers, E. E. Nice.....	35,932
Paper, cord, and twine, certain named, Hubbs & Corning Company.....	35,914
Photographic and optical goods, William E. Peck & Company.....	35,935
Planos, J. & C. Fischer.....	35,933
Pills, W. P. Lockwood.....	35,919
Ribbons, Vischer & Company.....	35,911
Sheet metal ware, Central Stamping Company.....	35,940
Shells, shot, Winchester Repeating Arms Company.....	35,941
Shoes, women's, D. Armstrong & Company.....	35,907
Steam and water specialties, certain named, T. P. Ford.....	35,938
Stoves, heaters, lamps, and burners, Hydrocarbon Burner Company.....	35,937
Tin foil, John J. Crooke Company.....	35,939
Wool fat and wool fat preparations, Norddeutsche Wollkammerel & Kammgarnspinnerei.....	35,928

### LABELS.

"Abilena," for mineral water, Abilene Drug Company.....	8,148
"American Beauty," for picture blocks, R. Bliss Manufacturing Company.....	8,138
"Brooklyn Bridge Brand," for cement, New York & Rosendale Cement Company.....	8,152
"Dr. Lauritzen's Health Table Malt," for a beverage, P. Lauritzen.....	8,150
"Hay-R," for a medicine, G. N. Wanser.....	8,141
"Maharajah Royal India Curry," for curry powder, J. S. Henly.....	8,151
"On the Wing," for picture blocks, R. Bliss Manufacturing Company.....	8,134
"Phenol Oil," for a veterinary remedy, Lewis & Tisinger.....	8,145
"Re-stor-ine," for pills, J. W. Van Winkle.....	8,143
"Strawberry Cough Drop Brand," for cough drops, H. Dale.....	8,142
"Sulpho-Magnesia Water," for water, City Bottling Company.....	8,149
"Teddy's Roach Dust," for an insecticide, Burke Chemical Company.....	8,144
"Tree Top Pets," for picture blocks, R. Bliss Manufacturing Company.....	8,135
"20th Century" Poultry Food, for poultry food, J. Haas.....	8,146
"20th Century" Stock Food, for stock food, J. Haas.....	8,147
"Wildwood Pets," for picture blocks, R. Bliss Manufacturing Company.....	8,136

### PRINTS.

"Pollwog School Shoes," for shoes, C. R. Beach.....	303
"Sultar," for a cleaning compound, Sultar Company.....	304

A printed copy of the specification and drawing of any patent in the foregoing list, or any patent in print issued since 1863, will be furnished from this office for 10 cents. In ordering please state the name and number of the patent desired, and remit to Munn & Co., 361 Broadway, New York.

Canadian patents may now be obtained by the inventors for any of the inventions named in the foregoing list, provided they are simple, at a cost of \$45 each. If complicated the cost will be a little more. For full instructions address Munn & Co., 361 Broadway, New York. Other foreign patents may also be obtained.

### "Profitable Poultry Keeping"

IN ALL ITS BRANCHES. This is the title and theme of our new Year Book. Contains 194 pages, 8x11 in., 240 new and original illustrations of best poultry farms, buildings, etc., in the country. Deals with every phase of the poultry industry in an instructive and profitable way. Treats also of the famous non-molt, self-ventilating and regulating **CYPHERS INCUBATORS**, hatch any other in three or more tests or money refunded. Sent for 10c in stamps. Ask for book 1st Circular and prices free. Address nearest office. **CYPHERS INCUBATOR CO.,** Boston, Mass., Wayland, N. Y., Chicago.

### PERFORATED METALS

FOR ALL USES. MADE AS REQUIRED.

**HARRINGTON & KING PERFORATING CO., CHICAGO.**

### VICKS SEEDS

What are your planting plans for this year? Will you have a vegetable or a flower garden? In either case we can help you to make your garden a success. Tell us what you plant and we will send you our new **Garden and Floral Guide FREE**

The most valuable book of its kind published. It readily solves all the problems of planting.

**JAMES VICK'S SONS,**  
Box No. 1513 Rochester, N. Y.

### 10 DAYS' TRIAL DAUS' TIP TOP

to responsible parties. Duplicator prints 100 copies in black from one pen. It takes an original and 50 copies from typewriter. It takes an expert to tell the duplicates from the original.

**FELIX DAUS DUPLICATOR CO.,** 5 Hanover St., New York

### PATTON'S SUN PROOF PAINT

Our book of paint knowledge for all painters sent free on request.

Liberal inducements to dealers. **PATTON PAINT CO.,** 227 Lake St., Milwaukee, Wis.

### "WOLVERINE" Gas and Gasoline Engines

STATIONARY and MARINE.

The "Wolverine" is the only reversible Marine Gas Engine on the market. It is the lightest engine for its power. Requires no licensed engineer. Absolutely safe. Mfd. by **WOLVERINE MOTOR WORKS,** 12 Huron Street, Grand Rapids, Mich.

### \$25.00 BUYS A BUGGY

(with top \$38.) We manufacture a full line of Buggies, Carriages and Harness all of latest styles. Superior quality. Prices defy competition. The entire product of 2 enormous factories. Sold direct to consumer only. SAVE DEALER'S PROFIT. Every Carriage guaranteed. Sent on approval. Your money back if not satisfied. Write for Special Offer. **UNION BUGGY COMPANY,** 218 Saratoga St., Pontiac, Mich.

### THE HARRISON CONVEYOR

—Electric Light and Power Station Equipment, Industrial Railways, Screens, Roller Screens, Elevators, Hoisting Finskins, Chain Shell Buckets, Breaker Rolls, Picking Tables, Howe Standard Scales, Howe Gas and Gasoline Engines. For catalogue address the manufacturer.

**BORDEN & SELLECK CO.,** 48-50 LAKE STREET, CHICAGO, ILL.

### WALRATH GAS & GASOLINE ENGINES

From 4 to 200 H. P. Made in one, two, three and four cylinder type. The gas engine that holds its own as an automatic steam engine. Adapted to all power purposes, stationary or portable, and especially well qualified for electric lighting. Guaranteed to produce a first-class commercial light without the aid of countershafts or massive fly-wheels. Neat in design, simple in construction, economical in operation, self-lubricating, all parts interchangeable and accessible. Send for catalogue "S."

**Marinette Iron Works Mfg. Co.,** Marinette, Wis., U. S. A.  
G. F. WHEELER, General Sales Agent, Chicago office, 301 Fisher Bld'g.

### ELEVATING - CONVEYING POWER TRANSMISSION MACH'Y COAL WASHING MACHINERY

Coal Mining Machines  
ELECTRIC MINE LOCOMOTIVES  
POWER COAL DRILLS  
COAL HANDLING MACHINERY

The JEFFREY Catalogue For Mfg. Co. U. S. A. Columbus, O.

### GAS and GASOLINE ENGINES

1-4 and 1 horse power MARINE and STATIONARY.

Built in accordance with the practice in Gas Engine designs. Also complete set of castings. Write for particulars.

**CLIFTON MOTOR WORKS,**  
233 E. Clifton Ave., Cincinnati, Ohio.

### FERRY'S SEEDS

You know what you're planting when you plant Ferry's Seeds. If you buy cheap seeds you can't be sure. Take no chances—get Ferry's. Dealers everywhere sell them. Write for 1901 Seed Annual—mailed free.

**D. M. FERRY & CO.,**  
Detroit, Mich.

### CAUSE OF LUMINOUSITY IN THE FLAMES OF THE HYDROCARBON GASES.

By Prof. Vivian B. Lewis. An important paper in which the author endeavors to show that the luminosity of hydrocarbon flames is due to the localization of the heat of formation of acetylene in the carbon and hydrogen produced by its decomposition, and the cause of such localization. Contained in SCIENTIFIC AMERICAN SUPPLEMENT, Nos. 1012 and 1013. Price 10 cents each. To be had at this office and from all newsdealers.

### Economical Gas Engine Igniters

of every description for Stationary, Marine or Automobile Engines, Dynamos, Magnetos, Starters, Coils and Plugs for either touch or jump spark.

**Dayton Electrical Mfg. Co.,** 80 St. Clair St., Dayton, O.

### DO YOU USE GRINDSTONES?

If so we can supply you. All sizes mounted and unmounted, always kept in stock. Remember, we make a specialty of selecting stones for all special purposes. Ask for catalogue.

**The CLEVELAND STONE CO.,**  
2d Floor, Wilshire, Cleveland, O.

### WE'RE JUST AS THANKFUL

For your order for a single buggy or one set of harness as we are for a carload. If we receive your order for one item others will come in time. That's how we've built up our business to its present mammoth proportions. Our "Murray" work has stood the test of years and our best customers are those who have been purchasing us from the time we started in business 15 years ago. We sell to you direct from factory our celebrated "Murray" Buggy Harness at \$4.75 per stand up, and "Murray" Top Buggies at \$25.50 each and up. Our mammoth line of Buggies, Phaetons, Driving Wagons, Surreys, Pleasure Wagons, Spring Wagons, Milk Wagons, Bakery Wagons, Delivery Wagons, Grocery Wagons, Laundry Wagons, Farm Wagons, Buggy Harness, Wagon Harness, and Saddles, is an exposition in itself, and we invite you to call and make our place your headquarters when visiting Cincinnati. It will be a pleasure for us to show you through, whether you wish to buy or not. To those who are unable to call and examine our stock in person, we will gladly mail FREE upon application our large illustrated Catalogue, No. 64, giving prices on our "Murray" work, which we sell direct from factory to consumer, and which we ship anywhere with privilege of examination without one cent in advance. **ALL OUR "MURRAY" WORK IS GUARANTEED FOR TWO YEARS AGAINST BREAKAGE.**

**THE WILBER H. MURRAY MFG. CO.**  
10s. 323 to 329 East Fifth Street, CINCINNATI, OHIO.