

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 This is for our information and not for publication.

(8314) R. V. asks: 1. If you know the voltage and amperage of a battery how do you find the watt output? A. Multiply the volts by the amperes.

(8315) G. H. DeL.: I wish to kill a number of pole-cats by means of electricity, without damaging the fur. I have a 1,000 watt alternating current dynamo with 8-pole field and 8-pole armature, but do not have any idea of its practical value for this purpose.

(8316) E. D. S. writes: In your issue of July 6, on page 12, "Notes and Queries," No. 8250, W. M. R. says he put a slotted core armature in the 8-light dynamo, and succeeded in getting 50 volts at a speed of 1,600 per minute as against 2,200 for the armature as usually constructed.

(8317) C. J. M. asks: 1. Can you tell me where a spring motor can be got, one that would run a fan? A. Correspond with any of our advertisers who supply fans and motors.

roof where condensed steam runs down. A. The green silme is a plant, or rather millions of plants, which grow from other plants just as higher plants do; only the method of their reproduction is entirely unlike that of the higher plants.

(8318) W. J. B. asks: Suppose a hole through the earth and its center of gravitation. Eliminating all friction and resistance to the passage of a ball dropped into this hole, the only force acting being that of gravitation, will the ball pass beyond the center of gravitation? In what manner will it come to rest, if at all? A. The ball will fall with an increasing velocity till it reaches the center of the earth.

(8319) H. G. M. asks: 1. Would like to know a simple method of securing copper plates to carbon (solid), e. g. A. Electroplate the carbons with copper, and then solder the copper plates to the electroplating.

(8320) J. W. A. proposes these problems: 1. A contracts to furnish B electric motive power 11 hours per day, 26 days per month, at \$2 per month per horse power, to be measured by a Thompson recording meter, sold by General Electric Company, giving readings on five dials in watt-hours.

(8321) F. K. S. asks: 1. On the use of storage cells what is meant by sulphating, buckling and internal short circuiting? A. Sulphating is the formation of sulphate of lead by the action of sulphuric acid upon the lead of the plates.

(8322) H. C. S. asks: 1. Wishing to construct an experimental wireless telegraph outfit, if possible, I would like to know what is the shortest length of spark that could be used to illustrate the principle, having your instruments the length of an ordinary room apart? Also if you have published a SUPPLEMENT or can recommend a book containing a description of such an instrument?

(8323) W. E. S. asks: 1. Will a dynamo furnish the same spark for igniting a gasoline engine when the circuit is broken as the batteries will? A. Yes. 2. Can a dynamo be used in starting the engine without batteries? A. No, unless you have other power for running the dynamo than that of the gas engine.

(8324) J. W. A. asks: 1. Will a dynamo furnish the same spark for igniting a gasoline engine when the circuit is broken as the batteries will? A. Yes. 2. Can a dynamo be used in starting the engine without batteries? A. No, unless you have other power for running the dynamo than that of the gas engine.

NEW BOOKS, ETC.

LABORATORY INSTRUCTIONS IN GENERAL CHEMISTRY. Arranged by Ernest A. Congdon, Ph. D., F. C. S. Philadelphia: P. Blakiston's Son & Co. 1901. Pp. 110. Price \$1.

The present work is intended to illustrate a course of study in general chemistry. Much of the material is original, having been developed in the course of ten years' experience in laboratory teaching, while those portions taken from other sources have been modified and added to so that they might better meet the wants of students.

LES INDUSTRIES CERAMIQUES. E. S. Ausercher et Ch. Quillard. Encyclopedie Industrielle. Paris: J. B. Bailliere & Fils. 1901. 16mo. Pp. 280. Price \$1.25.

The authors have produced a book which deserves to take its place in the literature of ceramic industries. They have given formulas which have been tested by long experience, and have reduced the number of these formulas as far as possible in order that the work might not become too complex.

DAS GASGLÜHLICHT. Die Fabrikation der Glühneke ("Strümpfe"). Von Prof. Dr. I. Castellani, Autroisirte Uebersetzung und Bearbeitung von Dr. M. L. Baczewski. Wien: A. Hartleben's Verlag. 1901. Pp. 121.

It has been the author's purpose to give a fairly complete account of the manufacture of the well-known incandescent gas light mantles. He has, therefore, carefully and clearly described each step in the process of making the mantles, the properties of the materials which enter into that process and the source of supply whence these materials can be obtained.

INDEX OF INVENTIONS For which Letters Patent of the United States were Issued for the Week Ending August 6, 1901,

AND EACH BEARING THAT DATE.

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

- Air, apparatus for refrigeration of atmospheric, O. P. Ostergren. 679,907
Air brake controller, J. C. Wands. 680,091
Air brake system, N. A. Christensen. 679,945
Air regenerating and purifying apparatus, Desgrez & Balthazard. 680,028
Alkali metals, electrolyzing salts of, Allen & Moore. 680,191
Animal trap, C. Bloker. 680,114

- Automobiles, starting device for oil or gasoline engines for, J. P. & J. N. Wright. 680,108
Baller, K. Moring. 680,163
Bale of fibrous material, J. T. Cowley. 679,881
Bale stay band, W. M. Holmes. 679,845
Bale staying device, J. T. Cowley. 679,882
Bale tie or band, W. M. Holmes. 679,844
Baling fibrous material, apparatus for, J. T. Cowley. 679,833
Baling machine, R. S. Munger. 680,164
Baling press, P. K. Dederick. 679,722
Band cutter and self feeder, automatic, J. N. Co. 679,725
Bandaging table, E. C. Miller. 679,980
Bank, portable savings, J. E. Ingram. 680,146
Barrel, O. H. P. Cornell. 679,728
Barrel, G. M. Tilghman. 680,183
Basin, wash, W. Bunting, Jr. 679,882
Basket making machine, E. Horton. 680,149
Bearing for disk drills, C. Moehring. 680,061
Bed, folding, T. Hauser. 680,042
Beehive, R. Decroly. 680,025
Belt, S. J. Prokesch. 680,071
Belt placer, J. S. Montgomery et al. 680,063
Bicycle, E. C. non-refillable, H. K. Prosser. 680,048
Bicycle friction clutch, A. P. Morrow. 679,982
Bicycle saddle clip, C. B. Reid. 679,913
Bicycle stand, H. Roskopf. 680,177
Bicycle support, G. W. Manson. 679,765
Bicycle support, J. E. Sweet. 679,794
Bicycles, etc., alarm apparatus for, Blomster & Gustafson. 679,825
Binder, loose leaf, L. G. Schult. 679,865
Blast furnace, J. W. Nesmith (reissue). 11,925
Bobbin holding socket, J. Brown. 680,019
Boiler, S. Amara. 680,185
Boiler furnace steam, J. O. Morris. 679,981
Boiler tube cleaner and driving mechanism therefor, W. L. Cassaday. 679,723
Book and leaves thereof, index scrap, C. C. Ely. 679,734
Book, index, L. Hirsch. 680,044
Book, trade, A. A. Gihsson. 679,741
Books, newspapers, etc., holder for, J. C. Skogvold. 680,080
Bottle, non-refillable, F. J. Abate. 679,931
Bottle, non-refillable, H. K. Prosser. 680,073
Bottle or jar closures, device for removing, H. K. Prosser. 680,072
Bottle stopper, C. W. Meinecke. 680,162
Box or package, Hess & Clark. 679,747
Brake controlling apparatus, F. C. Stockel. 679,791
Brake shoe, J. Sheehan. 679,787
Bread or candy dividing machine, C. Luetete. 680,051
Brick drier, F. Alisp. 679,816
Brick making machine, M. W. Marsden. 679,853
Bricks or tiles, machinery for pressing, R. T. Hughes. 679,846
Buggy top, J. O. Wells. 680,094
Buggy top raiser, J. C. Ford. 679,838
Building block, A. M. Fenner. 680,138
Building construction, W. H. Grueby. 679,746
Building construction, J. C. Pelton. 679,776
Burglar alarm or door signal, W. R. Edeben. 679,957
Burial casket lids, cap for, F. Warther. 680,092
Button, J. D. Burns. 680,121
Button and necktie retainer, combined collar, C. C. King. 680,047
Button fastener, E. M. Phelps. 679,911
Button holding clamp, J. T. Hogan. 679,751
Button, separable, E. M. Phelps. 679,910
Button, tack, T. Long. 679,762
Calender rolls, means for cooling, Drew & Dickinson. 680,135
Camera, E. R. Bullard. 679,881
Camera, magazine, C. C. Henderson. 680,203
Can filling machine, C. H. Plummer. 679,780
Can holder, detachable, W. H. Goddard. 679,742
Cans, machine for straightening empty tin, J. W. McCall. 679,772
Candelabrum, J. T. O'Reilly. 679,984
Car and grain door, combined, J. B. Mockridge. 679,855
Car door, grain, W. H. Daniels. 680,132
Car draft gear, freight, J. J. Creed. 680,130
Car fender and brake, street, T. M. Sanderlin. 680,178
Car roof, J. E. Uish. 679,901
Car ventilating apparatus, C. O. Johnson. 679,754
Car vestibule, Hodges & Chis. 679,849
Car wheels, shog for truing up, M. Power. 679,781
Cars, excavator or machine for unloading, P. J. Mullaney. 679,903
Cars on sidings, device for locking or anchoring railway, H. E. Flower. 680,034
Cars, strut for wrecking, J. E. Graham. 679,840
Carbide, producing barium, C. M. J. Limb. 680,050
Cards, etc., mechanism for feeding, J. French. 679,961
Casket cover fastener, J. R. Corbett. 679,727
Caster, furniture, E. P. Kenyon. 679,849
Chain, belt, E. Magaldi. 680,159
Chair bottom or back, E. F. Brainard. 679,939
Check receiver, workman's S. A. Marker. 679,766
Cigar or cigarette making machine, Pisko & Philippi. 680,069
Cigarette boxing machine, G. M. Williams. 679,811
Cigarette wrapper, J. C. Simering. 680,003
Clipper, hair, C. Carleton. 679,944
Clutch, G. R. Goughnour. 679,744
Clutch for traction engines, friction, M. Laffey. 680,205
Cock, gas or other, C. F. Kincheise. 679,899
Coin delivery apparatus, H. L. Fisher. 679,837
Coke oven, L. J. Hirt. 679,749
Collar blanks, etc., machine for folding, G. Reece. 680,174
Combs, drawing off device for circle, Long & Foster. 679,975
Condensation, device for removing water of, P. J. Harleman. 680,040
Conduits, cushioning device for fluid, H. See. 679,786
Conservatory, portable, E. Alisp. 679,849
Conveyer, H. W. Blaisdell. 679,875
Conveyer, C. W. Hunt. 679,939
Copper sulphates, manufacturing, Palas & Cotta. 679,985
Copying device, carbon, J. L. & W. H. Calhoun. 679,722
Corn husking bench and fodder binder, combined, J. Emans. 679,735
Corn husking implement and twine cutter, J. Emans. 680,030
Corn snapping, cutting and husking machine, H. L. Ferris. 680,200
Corset, J. D. Belcher. 680,112
Corset steel, E. J. Martin. 679,977
Cotton elevator, cleaner, and feeder, R. S. Munger. 680,165
Cracker stacking machine, E. Mackay. 679,852
Crate, folding, M. G. Coughlan. 679,730
Cream separator, centrifugal, Collin & Hartmann. 679,948
Cuff holder, E. H. Trick. 679,799
Cultivator, disk, W. J. Wiswall. 680,211
Currycomb, M. Alston. 679,933
Cuspidor, F. Strothenke. 680,009
Cuspidor, non-spillable, O. D. Charles. 680,022
Cutting machine, F. H. Turner. 679,800
Cyanide, tank discharge door, A. D. Jansen. 680,154
Decorating machine, C. E. O'Neill. 679,983
Dental forceps, F. A. Brewer, Jr. 680,119
Desk and chair, combined school, H. W. Welles. 679,806
Desk leaf support, G. H. Wyman. 680,104
Direct acting engine, Sergeant & Frelwitz. 679,999
Disinfecting apparatus, toilet, L. C. Schone-man. 680,179
Display box, W. K. Peek. 679,909
Display book, J. La Burt. 679,900
Door check, C. H. Ocumpaugh. 679,905
Door check and alarm, J. A. Britton. 680,190
Door closing apparatus, J. H. Cook. 679,952
Door frame, adjustable, J. Bachus. 680,015
Door opening or closing device, automatic, L. Ives. 679,847
Door, sliding, J. Handschumacher. 679,962
Draft device, loop bar for, N. C. Woodward. 680,102
Draft equalizer, J. Blanchette. 679,938
Drawer guide for steel furniture, J. M. Cornell. 680,127
Dredging apparatus, J. L. Garwood. 679,738
Driving device, cushioned, Oldfield & Schofield. 680,170
Drying wraps, yarns, etc., device for, F. Gilli. 680,037
Dust guard, H. B. Brower. 679,880
Dye and making same, blue red disazo, A. L. Laska. 679,974
Dye house conveyer, J. Knott. 679,757

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