

Business and Personal.

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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 This is for our information and not for publication.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. Inquiries not answered in reasonable time should be repeated: correspondents will bear in mind that some answers require not a little research, and though we endeavor to reply to all either by letter or in this department, each must take his turn. Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same. Special Written Information on matters of personal rather than general interest cannot be expected without remuneration. Scientific American Supplements referred to may be had at the office. Price 10 cents each. Books referred to promptly supplied on receipt of price. Minerals sent for examination should be distinctly marked or labeled.

(7168) E. T. asks: Why do you have to put in a magic lantern slide upside down to make it show right on the canvas? A. Because the rays cross in the lantern.

(7169) F. L. C. says: Please give me, through Notes and Queries, a recipe for a hard cement for bicycle tires. A. For bicycle tire cement, mix together two parts pitch and one part of gutta percha. Melt over a water bath and use hot.

(7170) E. Y. M. asks: 1. What is the best way of cutting down a 500 volt current for charging storage batteries where a meter is used? A. The best way of charging cells from a 500 volt circuit is to use the current in a motor dynamo built to give the current required, perhaps 10 amperes at 25 volts per cell. 2. Will a rheostat made of German silver wire consume any of the current? A. The rheostat affects current by its resistance, according to Ohm's law - current = volts divided by ohms. 3. How much and what size German silver wire should be used to reduce current to proper voltage for charging the storage cells? A. It is not economical nor feasible to reduce a 500 volt current for charging cells with a wire resistance of any kind. 4. Would iron wire do as well? A. Iron has about one-half the resistance of German silver, and, therefore, about twice as much, size for size, would be required for any resistance. 5. How many watts will be consumed in charging a 150 ampere hour cell? A. Two and one-half volts are required to charge a storage cell; hence 2.5 x 150 = 375 watt hours. 6. To what voltage should the current be reduced? A. 2.5 x the number of cells in series.

(7171) L. C. T. says: Please send me a recipe for removing freckles from the skin. One that is not injurious, if such a thing is possible. A. Under the empirical title of "Albadermine," a process of removing tan and the milder variety of freckles, a foreign surgeon has devised the following:

Solution A.

- Potass. iodid. dr. ii.
Iodine pur. gr. vi.
Glycerine. dr. iii.
Infus. rose. oz. iv.

Dissolve the iodide of potassium in a small quantity of the infusion and a drachm of the glycerine; with this fluid moisten the iodine in a glass of water and rub it down, gradually adding more liquid until complete solution has been obtained; then stir in the remainder of the ingredients, and bottle the mixture.

Solution B.

- Soda hypsulph. thiosulphate. oz. iss.
Aqua rose. ext. pt. i.
Dissolve and filter.

With a small camel's hair pencil or piece of fine sponge apply a little of "Albadermine A" to the tanned or freckled surface, until a slight but tolerably uniform brownish yellow skin has been produced. At the expiration of fifteen or twenty minutes moisten a piece of cambric, lint or soft rag with "B," and lay it upon the affected part, removing, squeezing away the liquid, soaking it afresh, and again applying until the iodine stain has disappeared. Repeat the entire process thrice daily, but diminish the frequency of the application if tenderness be produced. In the course of three to four days to as many weeks the freckles will either have disappeared entirely or their intensity will be greatly diminished. "Summer freckles" yield very speedily to this treatment.

Advertisements.

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Inside Page, each insertion -- 75 cents a line
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DRY BATTERIES.-A PAPER BY L. K. Bohm, treating of open circuit batteries, historical dry batteries, modern dry batteries, Hellesen's battery, Bryan's battery, Koller's battery, and the efficiency of dry cells. With three illustrations. Contained in SCIENTIFIC AMERICAN SUPPLEMENT, No. 1001. Price 10 cents. To be had at this office and from all newsdealers.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

JUNE 22, 1897.

AND EACH BEARING THAT DATE.

(See note at end of list about copies of these patents.)

Table listing inventions and their patent numbers, including: Advertising device, Lawrence & Hays; Air compressing apparatus, I. T. Dyer; Alarm, See Burglar alarm; Animal trap, self-set, C. T. Pelton; Ashes, etc., apparatus for elevating or conveying, J. M. Taylor; Astronomical apparatus, G. E. Henderson; Bag, See Hand bag; Safety bag; Baggage handler, G. H. Wall; Baling press, duplex roller, A. Schulze; Bank, child's savings, J. T. Maher; Barrels, casks, etc., apparatus for heating and drying, H. Dunham; Bath tub attachment, R. A. Cox; Bearing, roller, T. J. Reid; Bearing, roller, J. F. Swinerton; Bed, sofa, W. T. Kolp; Bell, bicycle, Allen; Bell, bicycle, Claybourne & Shiek; Bicycle, P. J. Berlo; Bicycle, L. G. H. Kinsman; Bicycle, C. H. Metz; Bicycle, C. Young; Bicycle, L. W. Weis; Bicycle crank, W. Diebel; Bicycle lock, W. H. Stevens; Bicycle luggage carrier, C. H. Lamson; Bicycle saddle, O. A. Tompkins; Bicycle saddle spring attachment, C. H. Little; Bicycle support, R. J. Cessford; Bicycle support, C. A. Wade; Bicycle trainer, I. H. Davis; Bicycle, tricycle, etc., D. E. Norton; Bleaching, etc., apparatus for, M. H. Smallwood; Block, machine; Boiler, See Washboiler; Boiler or other furnace, steam, E. Fales; Bolt heading machine, C. W. Durchschlag; Book, separable, F. H. Gilson; Boots or shoes, self adjusting follower for, J. W. Thomson; Bottle, L. C. Adams; Bottle, F. T. Fernandez; Bottle, non-refillable, W. H. Wellstead; Bottle stopper, J. & C. M. Hahn; Box, See Folding box; Match box; Miter box; Paper box; Sand box; Box, M. Helber; Box making machine, W. S. Moore; Box strap, S. C. Cary; Box strap machine, Wolf & Ross; Bracket, See Telephone bracket; Bracket and insulator, combined, G. W. Mead; Brake, bicycle, Wagon brake; Bridle blind, J. S. Dean; Buckle, suspender, C. W. Latimer; Bullet lubricating device, W. W. Tracy; Burglar alarm, O. E. Jacob; Burglar alarm, Sutton & Steele; Burglar alarm, apparatus for saving persons, M. Karnicki; Burner, See Hydrocarbon burner; Bust, adjustable clothes, H. Lowenthal; Button fastener, C. H. Warrington; Babinet, blank, A. M. Kinsel et al.; Calk, G. A. Melc; Canceled machine, mail, W. Barry; Can filling machine, H. D. Pierce; Car construction, railway, W. P. Appleyard; Car coupling, W. F. Richards; Car roof, Williamsen & Fries; Car roping device, C. L. Lins; Car safety device, street railway, A. W. Fuller; Car seat, H. Meier; Car wheel, J. S. Woodcock; Carbon, arc lamp, T. M. Foote; Cards, playing, C. A. Wells; Carriage, folding, P. F. Lydon et al.; Carriage, folding baby, J. Sale; Carriage, spring, A. E. Arnold; Cask pitching apparatus, C. Hagenmuller; Casting dovetails, pattern for, E. Kuhn; Cellar ventilator, C. N. Stanton; Channel forming and preserving apparatus, E. G. Nichols; Check, draft, etc., safety bank, A. W. Dowe; Chuck, nipple, J. R. Flinn; Churn and butter worker, combined, T. J. Howe; Circuit breaker, W. E. Harrington; Clasp, See Pad clasp; Clock case, A. Conkling; Clocks, sweep seconds hand train for, W. C. Sellers; Cook, gage, Stroyvall; Cooking machine, automatic, R. Lo Forte; Condenser, A. Hoberrecht; Core box sections, machine for making, J. A. Crane; Cork, dosing, Konold & Casper; Corn husker, G. W. Facker; Corn husking machine, W. H. Van Schaick; Corn sheller cylinder, J. H. Gilman; Corset, L. E. Dill; Corset, F. A. Hiekel; Coupling, See Car coupling; Rod section coupling; Crank, variable throw, A. Anthony; Crate for shipping wild game birds or poultry, C. Payne; Crate, fruit, A. S. Dimmick; Cuff holder, G. Upson; Cup, See Measuring cup; Cutoff mechanism for water pipes, automatic, D. W. Troy; Cycle saddle, G. F. Schrader; Dental flask press, J. E. Andrews; Dental handpiece, G. Sibley; Dish, carving, S. Sherman; Displayer, hat, A. J. Tribolet; Door lock alarm, electrical, P. V. Van de Velde; Door or window fastening device, I. V. Mead; Drilling attachment, H. L. Warner; Drilling machine, D. H. Church; Drill, variable speed, C. Noble; Dry goods rack, J. P. Caldwell; Duplicating or stencil printing machine, H. W. Lowe; Dye, blue, M. Boniger; Dye, green trazo, K. Jedlicka; Dynamo brush holder, J. H. Yearsley; Ejector condenser exhauster, C. A. Bourden; Electric circuits, automatic switch for, R. Belfield; Electric conductor, I. W. Henry; Electric current generator, therapeutic, E. W. Chellis; Electric meter, coin freed, Knight & Ellis; Electric motor controller, H. P. Davis; Electromagnet, C. P. Bostian; Electrotherapeutic apparatus, F. J. Patten; Elevator controller, Lenz & Newhall; Envelope machine, Metcalfe & Sherman; Explosive engine, C. Quast; Eyeglasses, cushion pad for, E. A. Parker; Fan, automatic, R. Steel; Fan, ventilating, G. H. Barney; Fastener for gloves, etc., C. A. Frenning; Faucet, T. B. Ryan; Felt guid, W. Witham; Fence, G. S. Clements; Fence post, metallic, J. Y. Propst; Fence stay, wire, D. M. 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(Continued on page 14)

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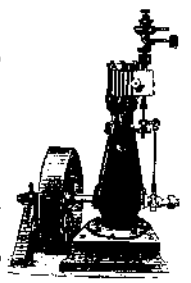
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