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Notes & Queries

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you go in either direction around the armature. Make a four-post commutator, and join ends of the coils to its bars.

(7584) R. H. B. asks: Has any other mixture besides silver and nickel been found for use in the Marconi coherer in wireless telegraphy?

(7585) N. S. J. writes: A correspondent in your issue of December 17 recalls to my mind experiments often made when I was a mere lad by rubbing lumps of white sugar together in the dark.

(7586) J. R. asks: 1. Why do I not get any current from my shunt machine on short circuit? A. A shunt machine will give no current on short circuit, because all of the voltage is lost in the armature circuit and none in the outside circuit.

CORRECTION.—In answer to query 7545, volts per candle should read "watts per candle." Electric lamps are rated in watts.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted JANUARY 24, 1899, AND EACH BEARING THAT DATE.

Table listing inventions with names and patent numbers. Includes: Agricultural implement, S. L. Allen; Air brake, E. A. Hauer; Air compressing apparatus, hydraulic, C. H. Taylor; Air compressor, hydraulic, A. E. Sterling; Alcohol, material for debasing, J. E. Lang; Auger handle, S. F. Sawyer; Axle, divided car, S. L. Denney; Bicycle attachment, M. J. Evans; Bicycle handle, E. A. Smith; Bicycle, means for propelling, C. H. Knight; Boiler, D. B. Kennedy; Boiler dry pipe, H. L. Wilson; Box, See Cigarette, cigar, or tobacco box; Tilt- ing box; Box fastener, J. M. Fultz; Boxes, machine for gluing on bottoms of wooden, C. H. Bump; Brace, See Leg and ankle brace; Bracket, See Car door bracket, Shade roller bracket; Brake, See Air brake, Car brake, Carriage brake, Vehicle brake; Burial casket and handle, W. H. Antes; Burner, See Hydrocarbon burner; Button, L. A. Platt; Canister, retooling, C. C. Bell; Car brake, T. D. Miller; Car coupling, B. W. Masterson; Car coupling, T. J. McBride; Car door bracket, W. A. McGuire; Car fender, street, S. Joseph; Car street railway, E. G. Allen; Carburetor, H. Hardy; Carburetor, A. G. Lamb; Carpet fastener, J. L. Fry; Carriage brake, pneumatic, D. P. Sammis; Carriage ventilator and heater, Burger & Williams; Carrier, See Cotton sack carrier, Luggage carrier; Case, See Coin case, Display case; Cash register, pocket, G. L. Barker; Casket lowering apparatus, E. B. Voorhees; Cellular board, manufacturing of, W. G. Chapin; Centrifugal pump, Adamsworth & Stevenson; Chair, See Convertible chair; Chair, W. Duffer; Chair, T. W. Wigg; Chairs, etc., back or seat for, L. H. McKee; Chair, folding, dipping machine, F. D. Panoulas; Chair lid and damper, M. J. Evans; Cigarette, cigar, or tobacco box, G. M. Williams; Clock, repeating alarm, A. Jungbans; Clock winding indicator, J. R. Andrews; Cloisonne work, A. Navarin (reissue); Coth doubling machine, J. Edmunds; Coffee mill, W. E. Nelson; Coffee or tea extractor, R. H. Haslam; Coin case, H. Anderson; Colander, M. R. Williams; Condiment holder, A. S. Seebright; Convertible chair, Diggs & Koettger; Corn husker, F. H. Smith; Corn husking machine, C. E. Brenning; Corset fastening device, E. Teltschik; Cotton sack carrier, W. G. Hamilton; Coupling, See Car coupling, Train pipe coupling; Culvert, J. E. Rausheok; Curling iron, S. Nolan; Current wheel, T. J. Vance; Cuspidor, Weimer & Kirkland; Cutter stock, A. W. Terrell; Delivery and exhibition apparatus, coin freed, A. E. D. Miller; Dental plates of artificial teeth, composition of matter for producing enamel for refixing, T. Clarke; Dental plugger, R. Blum; Derrick oil well, F. R. Shaw; Desk, L. H. Beck; Desulfurizing and dephosphorizing coal or ores, J. W. Kenevel; Detergent, J. Mendess; Diacetyl-indoxyl and making same, B. Heymann; Disinfecting apparatus, J. A. Heany; Dolly case, F. H. Smith; Dredging and mining apparatus, M. Steinberg; Dredging machine, A. Thompson; Dredging machine, power, C. L. Cloudman; Drier, See Clothes drier; Drier, F. A. Hetherington; Driving gear, R. H. Hennemeier; Dust pan holder, detachable, W. A. Anderson; Dye, black sulfur, H. R. Vidal; Earth, apparatus for working frozen auriferous, B. F. Gilman; Eccentric, F. Haslam; Educational appliance, Brodt & Mueller; Educational device, R. Mayer; Electric motor control, W. M. Brown; Electric motors, bearing for armature shafts of, Parker & Meaton; Electric switch, W. J. Ferguson; Electrical selective apparatus, J. S. Thompson; Electrical signal system, J. P. Buchanan; Electricity, automatic switch for distribution of, J. Hopkinson; Elevator, See Pneumatic elevator; Elevator, R. C. Smith; Elevator and conveyor, G. Hais; Elevator car, North & Paterson; Embalming apparatus, C. R. Drake; End gate, wagon, J. J. Hayden; Engine, See Gas engine, Rotary steam engine; Engines, safety stop for, R. Kunz, Sr.; Extractor, See Coffee or tea extractor; Fan motor, J. A. Craine; Faucet, F. Hawes; Feed water regulator, automatic, H. H. Dyke; Fence post, G. A. Dieckmann; Fire hose, F. Vaniman; Fertilizer distributor, Saunders & Farham; Filter and refrigerator, combined, H. Glessel; Filter apparatus, L. J. & A. L. Barthelmy; Fire hose support, H. K. Martin; Fuse stopper, B. E. Bengtson; Fly trap, A. W. Allen; Freezer, dry, F. W. Merrill; Furnace, See Heating furnace; Game counter, T. G. Howland; Game, war, Lang & Berger; Garbage holder, T. Albes; Gas burner, acetylene, H. E. Shaffer; Gas engine, E. E. Wolf; Gas generator, acetylene, M. E. Sprague; Gas generators, feed water regulator for acetylene, I. C. Curtis; Gas meter diaphragm, Hearne & Lawson; Gate, E. F. Fott; Gate fastener, C. M. Weaver; Gear, M. C. Johnson; Gear, chain, G. F. Sturgess; Generator, See Gas generator; Glass press, R. P. Lippincott; Gold separator, Jackson & Hemley; Governor, F. Haslam, variable, M. O. Arnegard (reissue); Grinding or corrugating machine, F. W. Wright; Grinding wheel water feeding device, G. J. Ridley; Gun, magazine, A. W. Son; Gun, magazine, D. D. Miles; Hammer, portable pneumatic, C. H. Johnson; Hammering machine, electrical, T. C. Robinson (reissue); Handle, See Auger handle, Tea or coffee pot handle, C. Lichtl; Harvester, J. Macphail; Hasp lock, W. M. Valentine; Hay rake and sweep, interchangeable horse and hand, P. R. & N. Miller; Heater, See Milk heater; Heating furnace, W. V. Barnes; Heel, boot or shoe, H. O'Sullivan;

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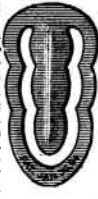
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