

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 This is for our information and not for publication.

(7633) J. N. D. asks: 1. About what would be the required dimensions of the glass plate in a simple electric machine, to charge a small Leyden jar?

(7634) F. V. writes: While experimentally testing the efficiency of a ground wire of a telephone line from Winsted to the railroad station at Lester Prairie, six miles south of here, the ground wire of the telephone at that point was connected with the telegraph wire.

(7635) P. N. writes: I am interested in a scientific problem on which I desire the evidence of or decision of a second party, and would ask you to answer the following: Suppose a man weighing 150 pounds will require to expend a force of 50 foot pounds (or a certain amount of force) to walk a certain distance, can the same man travel the same distance over the same road on a modern bicycle of 20 pounds weight with less force expended?

In its natural way of locomotion—walking—is superior in economy of force to one seated on a bicycle and imparting the force to the wheel? A. The bicycle is a great conservator of animal power.

(7636) J. K. asks the difference between a marine, field, and night glass. A. Marine glasses are also termed night glasses when they have a large diameter object glass, which is used at full area at night and reduced area by day, by placing a diaphragm cap over the object glass.

(7637) E. S. asks for the formula for a compost to imitate marble, which will be very hard and will take a high finish, and how to polish the same. It seems to be a secret; there are only a few men in this city that can mix it.

TO INVENTORS.

An experience of fifty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequalled facilities for procuring patents everywhere.

INDEX OF INVENTIONS For which Letters Patent of the United States were Issued for the Week Ending MARCH 28, 1899.

Table listing inventions and their patent numbers, including: Adding machine, T. Lanston; Air brake, Ansley & Topham; Alarm, H. E. Carlton; Alkyl derivative of uric acid, E. Fischer; Amalgamator, G. W. Williams; Animal trap, E. A. Mathias; Axle, self-lubricating, J. L. Doulose; Bales, arrangement for covering, J. W. Anderson; Barrel, knockdown, P. Mayotte; Bat forming mechanism, M. Swenson; Bath tub, F. Johnson; Battery, secondary, J. Grant; Bearing, anti-friction, A. W. Grant; Bed attachment, J. H. Greene; Bed bottom, spring, W. L. Antes; Beer, device for drawing steam, Farley & Jackson; Bell, bicycle alarm, Mossberg & Brink; Belt, conveyor, A. Haepfer; Bicycle, E. C. Doolittle; Bicycle frame, J. C. Parker; Bicycle gear, Kolb & Foehl; Bicycle gear, W. H. H. Lazarus; Bicycle handle bar, Rosenbauer & Schowalter; Bicycle pedal, E. Baker; Bicycle seat, J. H. Bailey; Bicycle spring frame, W. J. Pierce; Bicycle variable speed gear, Young & Drake; Bicycle wrench nipple grip, W. Herrick; Billiard table leveling device, V. Weiz; Biscuit, crackers, etc., method of and means for packing, F. M. Peters; Bolt, See Door bolt; Book cover protector, G. Cornwall; Boot cleaner, E. Shaw; Boot or shoe, R. E. Kelsall; Bottle stopper retainer and extractor, C. V. B. J. Small; Bottle wrapper, F. M. Wade; Box, See Cigarette box; Box corner locking device, F. L. Chase; Box covering machine, paper-cutting attachment, L. Dreyfuss; Brake, See Air brake; Fluid pressure brake; Brooder, chicken, E. F. Hodgson; Brush cleaner, M. C. Ryan; Brush, hair, W. H. Hippisley; Buckle, back band, J. W. Kirkman; Burglar alarm, J. H. Bailey; Burglar alarm, J. H. Cummings; Burner, See Gas burner; Hydrocarbon burner; Butter forming machine, J. E. Hunsinger; Button, separable, G. W. Lee; Cabinet, F. Tunc; Car coupling, J. J. Malloy; Car coupling, railway, Schelinger & Kleiner; Car door, grain, W. A. McGuire; Car sand box, A. W. Ham; Car seat, P. M. Kling; Cars, number displaying device for caboose, H. J. Small; Carburetor, C. M. Kemp; Card setting machine guide, E. Ashworth; Cardboard scoring machine, G. W. Jordan; Carpet sweeper, S. J. Reynolds; Carriage, baby, M. W. Mahar; Cartridge reloading tool, E. S. Farmer; Cash depository, E. Zinsmayer; Chair, S. N. McCloud; Chair fan attachment, rocking, J. T. Cowan; Chart for drafting garment pattern, M. Tucek; Cigar, Pollak & Teiser; Cigarette box, D. J. Campbell; Cigarette machine, pocket, W. L. Gravely; Cigarette making machine, W. G. Pedersen et al; Cistern or arch pattern, T. W. & L. B. Faus; Closet seats, attachment for raising or lowering, Burger & Williams; Clutch, friction, H. S. Kelly; Coal pocket, D. A. Robinson; Coasting, machine for covering small articles with liquid or semiliquid, G. S. & W. K. Baker; Cock for ash ejectors, plug, Trewent & Proctor; Coffee pot, L. Stockett; Coloring matter and manufacturing same, blue, K. Heuman; Compound engine, T. E. Chandler; Compound or composition of matter, J. L. Curtis; Compressing and baling apparatus, W. A. Patterson; Concentrator, G. W. Williams; Conveyor chain chair, J. T. Neacy;

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Table listing various mechanical and electrical inventions and their patent numbers, including: Cooking and heating apparatus, J. H. Goodfellow; Corn husking machine, R. J. Holmgreen; Coupling, See Car coupling; Thill coupling; Cue tip, H. Braun; Cultivator, L. L. Boyer; Cultivator, P. Frazier; Cultivator, W. F. Pattison; Cultivator, J. M. Wright; Cultivator attachment, Welch & Dickey; Cultivator, disk, J. C. Smith; Cutter, See Twine cutter; Cycle driving mechanism, H. E. Shepard; Cycle or other road vehicle, J. R. Heath; Cycle rear for end, A. Jerome; Cycles, means for holding, H. A. Ivatt; Decorative plate, tile, etc., S. Rosenberg; Dental disk holder, G. E. Zinn; Dental nerve broach, W. Vajna; Dipping tank, Moulton & Jones; Dish cleaner, C. E. Drake; Displayer, duplicate design, W. Macdonald; Distillation, preparing wood for dry, F. W. J. F. Schmidt; Door bolt, E. Burns; Door cap, sliding, E. H. Doane; Door fastener, H. R. Reesterna; Door lock, gravity, J. H. Canaday; Door stop and catch, combined, J. R. Lavigneur; Draught equalizer, Maxwell & Dimock; Draught rigging, G. S. Marshall; Draughting and measuring tool, combined, W. G. Rowland; Dress or skirt holder, A. Urtel; Easel, J. Schwarz; Egg carriers, machine for making, S. E. Davis; Electric circuits, overload safety device for, L. G. Rowland; Electric heater, D. S. Reed; Electric switch, M. H. Caspari; Electrical distribution system, W. H. Knight; Electricity from machinery of locomotives, means for generating, H. F. Roach; Electrolytic cell, H. H. Dow; Electrolytic cells and producing same, porous diaphragm for, H. H. Dow; Elevator controlling apparatus, M. B. McLauthlin; Elevator swiveled spout, D. A. Robinson; Engine, See Compound engine; Internal combustion engine, Rotary engine; Excavator, A. F. Nims; Exhibition cabinet, R. T. Swann; Expansion joint separator, D. O'Hair; Extractor, See Honey extractor; Stump extractor; Eye-glass guard, J. A. T. O'Brig; Fare box, registering, O. Katzenberger; Fastener, W. S. Seymour; Fastening device, C. A. Feesser; Fence posts, coating metallic, R. Kennedy; Fibrous materials, apparatus for cleaning, combined, T. V. Archer; Filter, C. L. Charrat; Filter, T. Linke; Filter for attachment to water taps, J. H. Niemann; Filter, water, S. M. Boyer; Filtering, cider or spirits, apparatus for, O. N. Felts; Fire escape, J. O. Miller; Fire escape, E. Kobigle; Fire hose reel, J. S. Patterson; Fish hook, J. V. Payton; Fluid pressure brake, automatic, J. J. Finney; Fluid pressure regulator, I. H. Spencer; Furnace, See Hot air furnace; Furnace implement, W. L. Williams; Furnaces, etc., apparatus for burning liquid fuel and in application thereof to heating, De Roussy de Sales & Charbonnel; Furnaces, preventing smoke and improving combustion in, J. M. Wilson; Fuse, protective, E. B. W. Reichel; Game, H. E. Coombs; Game, A. Dreher; Game apparatus, Huggins & Pollak; Game board and apparatus therefor, W. H. Degees; Garment, R. E. Lowe; Garment stretcher, J. F. Brock; Gas burner, E. H. Bernthausen; Gas burner, Munch & Wiedner; Gas burner, electric lighting, J. M. Anck; Gas burner, fuel, J. C. Kurtz; Gas burner, incandescent, A. Bandsept; Gas burner, incandescent, J. B. De Lery; Gas burner, jet, means for lighting incandescent or other, P. Bardot; Gas globes, spring holder for, D. O. Sayre; Gas lights, apparatus for forming incandescence mantles for, W. H. A. Sieverts; Gas meter, coin controlled, Cort & Langwith; Gas regulator, J. Duncan; Gate, J. B. Miesse; Gate, J. B. Miesse; Gate, W. R. Pitt; Glass working machine, I. W. Colburn; Globe, smoke consuming, J. Durlam; Glove fastening, C. A. Fenning; Golf sticks, finishing rods, etc., handle grip for, E. Crosier; Governor, astatic centrifugal, M. Tolle; Grain or hay, cover or roof for protecting, J. B. Deems; Grain or seed cleaner and grader, A. D. Ferguson; Grain steeping trough or cistern, F. Knutzel; Graphophone, coin controlled, T. H. Macdonald; Graphophones, etc., trumpet for, J. W. Kemp; Grate bar, D. S. Richardson; Grinding machine, J. Gilson; Gun barrel cleaning device, J. W. Scott; Hack clamp, J. G. B. Rouse; Hair pin, C. M. Dissoway; Hame fastener, H. M. Sheer; Handle, See Stamp handle; Harrow, spring tooth, J. H. Young; Hauling and conveying apparatus, H. R. Palmer; Hat, coachman's, H. Falkenbach; Hat fastener, H. J. Grote; Hat tray, G. E. Farwell; Heater, See Electric heater; Heel, boot or shoe, Ford & Starr; Hoisting and conveying apparatus, H. R. Palmer; Holdback attachment, vehicle, F. J. Hess; Honey extractor, centrifugal, A. Kuschel; Hook, See Fish hook; Horse power, J. C. Bowsher; Horseshoe studs or calks, apparatus for manufacturing, H. R. Palmer; Hose and nozzle holder, J. M. Dungan; Hose signal system, electric, H. Sargent; Hot air furnace, P. F. Filizez; Hot water circulating apparatus, R. R. Gibbs; Hydrocarbon burner, G. 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