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Marine Iron Works. Chicago. Catalogue free.
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Yankee Notions. Waterbury Button Co., Waterbury, Ct.
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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 This is for our information and not for publication.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.

(7215) E. R. asks: 1. Could you inform me if the eight light dynamo described in SUPPLEMENT No. 600 can be used as motor? A. Yes. 2. How many volts shall I use? A. 50. 3. Have you published any paper in which you describe any motor of say 1 or 2 horse power? All your description I have followed, and I have a fine Holtz machine, a dynamo, an induction coil and a small motor. A. The Edison dynamo described in SUPPLEMENT No. 844 could be enlarged to meet your wants, and the SCIENTIFIC AMERICAN dynamo described in SUPPLEMENT No. 865 could be reduced.

(7216) E. A. B. writes: 1. I am about to build the dynamo described in SUPPLEMENT No. 600 with half dimensions. What number wire should be used on the armature, and how much for drum winding? A. No. 24. Use 16 coils, 24 turns in each coil, in 2 layers of 12 turns each. 2. How many wires should be placed in multiple on the fields, and what number should they be? What would be the amount of wire on the fields? A. Put 2 coils on each leg of field magnets, each coil having 250 turns of No. 22. 3. What would be the voltage and current of this dynamo? A. 50 volts and 1/2 ampere at 2,500 revolutions per minute.

NEW BOOKS, ETC.

THE PSYCHOLOGY OF THE EMOTIONS. By Th. Ribot, professor at the College of France, editor of the "Revue Philosophique." London: Walter Scott, Limited, Paternoster Square, New York: Charles Scribner's Sons, 153-157 Fifth Avenue. 1897. Pp. 455. Price \$1.25.

This work sets forth the present situation of the psychology of feeling and emotion. It has been the aim of the author to keep the work within reasonable limits, and to this end he has refrained from digression and all historical exposition. The first part of the book is occupied with studies of the more general manifestations of feeling; pleasure and pain, and then the nature of emotion. The second part is devoted to the special emotions. The doctrine which the author adopts without restriction connects all states of feeling with biological conditions, and considers them as the direct and immediate expression of the vegetative life. Feelings and emotions are not a superficial manifestation; they have their root in the needs and instincts. The index (invaluable in a comprehensive work of this kind) is fairly voluminous.

THE NEW PSYCHOLOGY. By E. W. Scripture, Ph.D. (Leipzig), director of the Yale Psychological Laboratory. With 174 illustrations. London: Walter Scott, Limited, Paternoster Square, New York: Charles Scribner's Sons, 153-157 Fifth Avenue. Pp. 500. Price \$1.25.

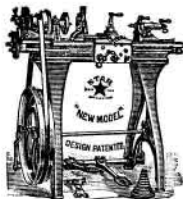
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his readers in simple terms that brought it readily within the comprehension of the reader. In the work before us the author manifests the same directness and simplicity of style and direction. The very term psychology is apt to carry with it ideas of abstruse metaphysical reasoning which deter any but the habitual student of the science from opening a new work on this subject. The present volume, however, will prove to be interesting and readily intelligible reading, even to those who have had little previous acquaintance with psychology. The new psychology consists in the application of physiological tests to psychological phenomena. Thus there is a measurable period of time between the moment that any object is presented to any of our senses and the moment of sensation. The new psychology, by means of delicate mechanical or chemical apparatus, enables us to measure this interval, which varies greatly in different individuals. So does the "time of reaction," or the conscious action in response to a signal. Part I of the volume deals with "methods," the next three are devoted to time, energy, and space, and Part V is a review of the past and present of the science. The work is freely illustrated with diagrams and half tone engravings of the various apparatus used by the author in the Yale laboratory, much of which is of his own design.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted


SEPTEMBER 21, 1897,

AND EACH BEARING THAT DATE.

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

Adding machine, F. H. Richards.....	590,277
Azing liquors artificially, process of and apparatus for, D. J. Ely.....	590,306
Alarm. See Electric alarm. Fire alarm.	
Alkaline metals, producing hydrates or other salts of, C. Kellner.....	590,548
Amalgamating, art of and apparatus for, W. A. Thacher.....	590,504
Amalgamating machine, A. Allen.....	590,291
Axle, vehicle spring, J. & J. McTurk.....	590,234
Balance wheels, construction of, J. W. Sargent.....	590,554
Ball. See Inflatable ball.	
Bearing, Sheard & Bone (reissue).....	11,630
Bearing, ball, G. M. Beard.....	590,203
Bearing for king bolts for vehicles, T. L. Bosart.....	590,251
Bed, folding, J. P. Hayes.....	590,335
Bedclothes holder, D. E. Morgan.....	590,401
Bedstead, A. E. Jacobson.....	590,265
Beehive, self heating, A. Duncan.....	590,366
Bell, bicycle, Dunton & Lilly.....	590,433
Bell, door, I. M. Hoffman.....	590,414
Belt fastener, J. Boucher.....	590,356
Belt for sprocket wheels, driving, E. A. Parker.....	590,461
Belt pin, B. G. Clark.....	590,358
Belt tightener, W. L. Chipley.....	590,208
Bicycle brake, Staberg & Phil.....	590,489
Bicycle crank pedal, J. F. Wilkinson.....	590,557
Bicycle handle bar, detachable and adjustable, G. W. Mosier.....	590,402
Bicycle propelling device, Calderwood & Edwards.....	590,492
Bicycle propelling mechanism, W. Hammacher.....	590,413
Bicycle rack, folding, A. F. Temple.....	590,443
Bicycle seat, C. B. McDonald.....	590,439
Bicycle seat clamp, E. F. Chalmers.....	590,256
Bicycle seat post, A. C. Goodenough.....	590,455
Bicycle shade, Masek & Capek.....	590,270
Bier, J. W. Smiser.....	590,282
Boiler. See Sectional safety boiler. Steam boiler.	
Bolt threading machine, automatic, J. A. Plopper.....	590,463
Boot, felt, G. H. Breckman.....	590,235
Bread cutter, Joetten & Marckie.....	590,312
Bread, fruit, A. L. Sieghart.....	590,406
Burner. See Gas burner. Gas lighting burner.	
Button and necktie fastener, combined collar, V. H. Geisler.....	590,519
Button, collar, A. Watson.....	590,506
Calorimeter, H. J. Williams.....	590,408
Camera, roll, H. H. Haskins.....	590,204
Cane float, fruit, Warder & Kreiter.....	590,389
Capsule filling machine, L. Starkenstein.....	590,502
Car coupling, T. H. Smith.....	590,488
Car coupling, Yarnell & Schmidt.....	590,352
Car door, grain, W. B. Palmeter.....	590,332
Car door guard, H. T. Krider.....	590,383
Car fender, J. B. Schmidt.....	590,487
Car grip, cable, T. Millen.....	590,438
Car heating apparatus, W. C. Baker.....	590,470
Car indicator, W. F. Bucher.....	590,296
Car roof, J. J. McCarthy.....	590,272
Card bearing, railway, J. C. Wands.....	590,254
Card feeding machine, J. F. Geb.....	590,541
Carding machines, protecting cover for, Sharpies & Snell.....	590,340
Carpet cleaner, J. Chapman.....	590,255
Cart, dumping, F. R. Smith.....	590,242
Cart, dump, T. G. Bennett.....	590,428
Cass. See Packing case.	
Cash register, E. F. Spaulding.....	590,344
Cash register and indicator, E. S. Smith.....	590,556
Caster, Zink & Meggenhofen.....	590,289
Casting car wheels, mould for, J. Connolly.....	590,452
Cattle guard, F. C. Seymouff.....	590,500
Cement gravel mill and crusher, J. M. Rademaker.....	590,423
Chain link, W. H. Griffith.....	590,479 to 590,481
Chair. See Rocking chair.	
Chair and foot rest, combined, A. Harte.....	590,520
Change maker, automatic, G. W. Hollingsworth.....	590,435
Clamp. See Bicycle seat clamp.	
Cleaner. See Carpet cleaner.	
Cloth hanger, J. E. Irvine.....	590,311
Coal separating machine, M. Davis, Jr.....	590,538
Cock, ball, F. Jewett.....	590,558
Coil, ball, F. Jewett.....	590,429
Coffee pot, drip, A. Barkard.....	590,518
Coloring apparatus, O. S. Garretson.....	590,518
Coloring yarns, method of and apparatus for, C. L. Horack.....	590,547
Commutator and means for assembling same, S. H. Short.....	590,496
Connection, universal, F. N. Stevens.....	590,373
Cooking utensil, M. Baesch.....	590,212
Copy holder and line indicator, J. L. Callanan.....	590,205
Cornice brake and folder, B. Irons.....	590,264
Couch bottom, J. Healy.....	590,322
Coupler, pneumatic, F. W. Hedger.....	590,545
Coupling. See Car coupling. Pipe coupling. Thill coupling.	
Crate, for egg and berry, J. L. Ferren.....	590,367
Crate, shipping, J. Bonta, Jr.....	590,510
Cultivator, E. Ackers.....	590,353
Culvert, J. & W. R. Thomas.....	590,490

(Continued on page 222)



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Cutter. See Bread cutter.....	
Cutter head, G. A. Ensign.....	590,493
Cutting tool holder, W. A. Smith.....	590,422
Cyanide, making, Frank & Caro.....	590,217
Damper, stove, G. W. Cole.....	590,431
Dental appliance, C. F. C. Mehlig.....	590,460
Dental engine, G. Valley.....	590,246
Dental furnace, W. Dall.....	590,214
Door indicator, C. A. Langford.....	590,418
Door opener or closer, D. B. Akard.....	590,230
Drying apparatus, J. Webster.....	590,287
Ear and tooth pick, combined, E. E. Rockstroh.....	590,280
Egg tray or carrier, A. B. Vang.....	590,427
Electric alarm, J. C. Bernhardt.....	590,237
Electric knife switch, A. C. Carey.....	590,386
Electrical apparatus, coin operated, W. B. Wheeler.....	590,427
Electrical conductors, interior conduit for, H. G. Osburn.....	590,374
Elevator safety device, J. Cooper.....	590,257
Elevators, means for preventing accidents in, Roth & Hiltz.....	590,424
Engine. See Dental engine. Rotary engine.....	
Envelope, J. Boyer.....	590,511
Envelope, A. C. Kinsley.....	590,372
Evaporator, fruit, W. K. Allen.....	590,354
Fire escape, W. S. Farman.....	590,249
Fire hydrant, G. E. Martin.....	590,284
Fire screen, H. A. Sykes.....	590,327
Fireproofing, R. W. Lyle.....	590,228
Fluid pressure motor, W. H. Knight.....	590,327
Folding box, R. L. Hart.....	590,234
Footrest, C. A. Lee.....	590,238
Foot support, R. T. Jones.....	590,416
Fracture apparatus, T. W. Sloan.....	590,531
Frame joint, E. J. Finley.....	590,307
Funnel, strainer, etc., combined, P. C. Smith.....	590,243
Furnace. See Dental engine. Rotary engine.....	
Furnace or stove, S. T. Bryce.....	590,450
Furnaces, forced draught device for, J. Apsey.....	590,355
Gage. See Screw thread gage.....	
Game counter, L. W. Heath.....	590,533
Gas burner, acetylene, L. Henkle.....	590,223
Gas burner, attachment, incandescent, Clay & Walsley.....	590,346
Gas burner for lighting, Jarre & Usanmaz.....	590,526
Gas burner, Welsbach, J. Lines.....	590,419
Gas generator, acetylene, D. J. Reynolds.....	590,441
Gas lighting, burner for incandescent, W. R. Clay.....	590,339
Gate. See Farm gate. Race track starter's gate.....	
Gate, S. H. D. Freed.....	590,517
Generator. See Gas generator.....	
Glass. See Opera glass.....	
Grinding machine, C. H. Norton.....	590,498
Gun rifle attachment, shelling, H. A. Darms.....	590,411
Gun small lock, bolt, P. Mauser.....	590,371
Hammer, claw, Harriman & King.....	590,368
Hand guard, N. Sylvester.....	590,347
Hanger. See Clothes hanger.....	
Harrow, P. McLaughlin.....	590,529
Harrow, P. Kirby.....	590,443
Harvester reel supporting device, C. A. A. Rand.....	590,444
Hat brim stiffening machine, L. R. Heim.....	590,370
Hat pin, B. H. Cook.....	590,362
Hats, heating device used in making or renovating, Oswald & Kirchgessner.....	590,236
Hay rake, machine for making, J. A. Scher.....	590,316
Heat retaining or protecting package for foods, etc., S. H. Street.....	590,406
Heater, C. W. Aldrich.....	590,447
Heating attachment for illuminating burners, Rust & Phelan.....	590,337
Hood pad, W. T. P. Hill.....	590,553
Horsehoe, cushioned, C. E. Burroughs.....	590,513
Hose to nipples, connecting, C. H. Dale.....	590,258
Ice cream freezer, T. Woerner, Sr.....	590,445
Indicator. See Car indicator. Door indicator.....	
Indicator with automatic stopping mechanism, W. P. Braun.....	590,512
Inflatable ball, E. I. Manley.....	590,421
Inhaler, G. W. Pickin.....	590,376
Inking pad receptacle, W. C. Robinson.....	590,499
Insect guard for poultry perches, C. A. Polson.....	590,237
Iron, treating phosphoric, A. J. Rossi.....	590,259
Joint. See Car joint.....	
Journal box, F. H. Gasseid.....	590,434
Kitchen cabinet, G. N. Tague.....	590,285
Ladder, rope, W. P. Buckley.....	590,475
Ladder, step, W. Price.....	590,335
Lamp, central draught, J. Jauch.....	590,415
Lamp chimney, J. L. Hill.....	590,483
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Lamp extinguisher, M. Fischhaber.....	590,216
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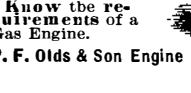
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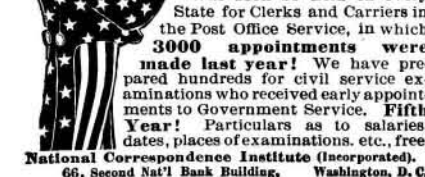
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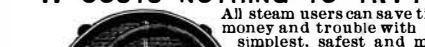
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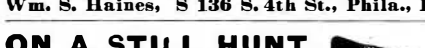
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