

NEW BOOKS, ETC.

A HAND BOOK OF GENERAL INSTRUCTIONS FOR MECHANICS. Containing Useful Rules and Memorandum for Practical Men. New York: D. Van Nostrand Company, 1909. 12mo.; 328 pp. Price, \$1.50.

The primary object of the author in writing this book is to give the mechanic, who has not had educational advantages, a text-book explaining established rules for calculating in a clear, simple, and concise way, making him familiar with the various technical terms and their meaning, and to be in general such a course of instruction as to impart in a simple manner the required knowledge to enable him to read understandingly more advanced works. The plan of the book is excellent, and the illustrations and examples are particularly clear. There is hardly anyone who has much occasion to use figures who would not be benefited by a perusal of parts of this book.

PRECIOUS METALS. Comprising Gold, Silver, and Platinum. By T. Kirke Rose, A.R.S.M., D.Sc. New York: D. Van Nostrand Company, 1909. 12mo.; 295 pp. Price, \$2.

This is one of the volumes of the "Westminster Series," which has proved such an excellent collection of technical literature. The present volume deals with the methods of treating gold by the wet and dry process. The extraction of silver, the refining and assaying of gold and silver ores, the assay of gold and silver bullion, minting, the manufacture of gold and silver wires, and a valuable chapter on platinum, together with tables on the production of precious metals. There has been room for a good book on gold and silver for some little time. This book seems to fill the niche admirably.

MOTORMAN'S PRACTICAL AIR BRAKE INSTRUCTOR. By George R. Denehie. Chicago: Frederick J. Drake & Co., 1909. 18mo.; 280 pp., leather back.

This is a concise up-to-date treatise on the construction and operation of the different air-brake equipments used in modern electric transportation. The author has been at considerable pains, therefore, to collect, condense, and compile all the latest available information bearing upon this most important subject of handling an electric car or a train of cars safely and at the same time economically. The diagrams and illustrations are particularly clear. Some of them are reproduced in colors. The get-up of the book, however, is not equal to another book on the same subject which we reviewed a short time since.

LIFE OF SIR CHARLES TILSTON BRIGHT, Civil Engineer. By Charles Bright, F.R.S.E. London: Archibald Constable & Co., Ltd. New York: D. Van Nostrand Company, 1908. 8vo.; 478 pp. Price, \$4.50.

In this book is incorporated the story of the Atlantic cable and the first telegraph to India and the colonies. In response to a number of suggestions in view of the fiftieth anniversary of the Atlantic cable, Mr. Bright has brought out an abridged edition of the biography of his father, the original work having been written by Sir Charles Bright's brother and by his son. There is probably no branch of engineering which lends itself so readily to a full sight of the world as that of telegraphy. Therefore, the present volume will appeal to the general reader only in a lesser degree than to the engineer, the student, and the historian. Sir Charles Bright was as much a traveler as a scientist, and even when engaged on the most trying cable venture in unhealthy climates, he invariably kept a neatly written record of the day's performance—of what he had seen and learnt—never retiring to bed without attending to his task. The detail to be drawn upon is very large, and the author has certainly made an excellent selection. The story of the Atlantic cable is one of the most romantic in the history of science, and it is gratifying that the biography of the pioneer should be written by his son.

THE LEAD AND ZINC PIGMENTS. By Clifford Dyer Holley, M.S., Ph.D. New York: John Wiley & Sons, 1909. 12mo.; 340 pp.; 85 figures. Price, \$3 net.

New pigments have come into use during the last ten years, new processes have been developed for the manufacture of the older pigments, new combinations of pigments have been worked out that have secured results hitherto unattainable. Yet up to the time mentioned above, except for short articles in some of the trade papers, these improvements and innovations remained practically unnoticed. Since public attention has been directed to the paint industry by the enactment of the various State laws regarding the sale of paint materials, several excellent American works have been written on this subject, but the majority of them have been directed more particularly toward the compiling of analytical methods and data than to the manufacture and uses of the various pigments. In this work the author has attempted to record the progress made in the United States in the manufacture of the more important pigments, and hence but little space has been given to European methods and processes except for comparison, as they have been discussed in detail in various English and European works.

MANUAL OF STEAM ENGINEERING. By W. H. Wakeman. New York and Chicago: New York Belting and Packing Company.

Mr. Wakeman's name is familiar to readers of the SCIENTIFIC AMERICAN SUPPLEMENT, as well as to readers of technical journals in general, as the author of many articles on engineering subjects. In this little book he has presented instructions, suggestions, and illustrations for steam engineers concerning the application to modern daily practice of the approved theory of steam engineering. Although the work is issued no doubt as an advertising pamphlet, it is essentially an engineering reference book containing data that are required in everyday practice, arranged in convenient form and with sufficient explanation to render the matter both interesting and instructive.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were issued for the Week Ending November 16, 1909, AND EACH BEARING THAT DATE

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

Table listing inventions with names and dates. Includes: Acetates, making H. O. Chute 939,980; Acetylene generating apparatus, A. Davis 940,437; Acid from nickel-chloride solution, recovering hydrochloric acid, H. L. Wells 940,293; Acid phosphate and the like, apparatus for handling, J. T. Capers 940,583; Advertisement displaying apparatus, J. T. Roffey 940,281; Advertising card, W. O. Holt 940,316; Air brake, J. W. Hicks 940,314; Air ships and the like, optical instrument for determining the direction of travel of, O. Krell 940,329; Alfalfa drier and mill, W. E. Riecke 940,193; Ambulance, J. P. L. Wilson 940,104; Annealing and hardening furnace, W. S. Rockwell 940,280; Arch supporter, adjustable, T. Hughes 940,022; Asbestos covering, sectional, W. J. Moeller 940,265; Ash pan, R. B. Patterson, Sr. 940,403; Auger bit, J. W. Caldwell 940,426; Automobile engine, A. S. Krotz 940,031; Automobile wheel drive, T. G. Rowe 940,093; Automobile wind deflector, J. M. Patrick 940,270; Awaiting fixture, F. O. Berg 940,120; Baking powder tester, F. Kleiy 940,258; Bar bender, J. T. Richards 940,360; Battery system, combined primary and secondary, J. H. Gugler 940,008; Bearing, roller side, J. F. O'Connor 940,353; Bearing wheel, roller, A. Wulff 940,106; Bearings of textile machinery, means for protecting roll, J. L. Patterson 940,551; Bed, folding, G. Lyons 940,038; Bed sofa, L. G. Herba 940,321; Beehive, G. R. Sinnickson 940,407; Belt fastener, C. S. Eaton 940,443; Binder or loose sheet holder, temporary, H. F. Bushong 940,508; Binder, temporary, G. H. Moore 940,443; Binder or loose sheet holder, temporary, H. F. Bushong 940,508; Binder, temporary, G. H. Moore 940,345; Binding post, H. E. Leppert 940,335; Binding book, A. Lungen 940,227; Block signaling system, F. F. Brush 939,973; Blow-off pipes, protector for, A. R. Chambers 940,427; Blower, rotary, L. E. Fagan 940,587; Board, apparatus for manufacture of composition, J. Ferla 940,449; Boards, manufacturing composition, J. Ferla 940,450; Boat lowering device, life, C. J. Christensen 940,512; Boiler low water signal, J. L. Setzer 940,202; Boiler water circulator, C. C. Eckliff 939,991; Bone black kiln, E. Eba 940,520; Bookbinding, cloth, M. Taprogge 940,287; Book and shoe separable fastener, J. Jeper-son 940,462; Bottle, O. Papp 940,049; Bottle, E. T. Greenfield 940,310; Bottle filling machine, Falls & Williams 940,138; Bottle lock, W. H. Bryan 940,125; Bottle washer, milk, W. W. Haggard 940,011; Bottler's apparatus, G. J. Meyer 940,178; Bottling machine, J. H. Camp 939,978; Bowling alley, surfacing machine, G. B. Gonia 940,004; Bowling pin, B. Merkle 940,341; Brake, E. Herold 940,461; Brake beam, H. Ziemss, Jr. 940,417; Brick machine, J. J. Mead 940,177; Brick machine, C. M. Starr 940,623; Bridge, J. F. Kaspar 940,326; Brush holder, E. R. Knight 940,393; Buckle, A. Bienezucht 940,498; Ruffing machine, J. J. Heys 940,015; Buggy top support, yielding, C. P. Johnson 940,158; Building block, interlocking, B. Benas 940,227; Burglar alarm, M. Korbel 940,535; Buttonhole machine, H. C. Miller 940,042; Cabinet, C. M. Hutchinson 940,023; Cabinet, light, McClure & Shuman 940,544; Caa closure, powder, G. W. Childs 940,128; Can opener, A. C. Lemm 940,396

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Lawson 940,333; Cementitious composition and making same, W. E. Carson 939,977; Chair iron, H. W. Bolens 940,232; Check, barber's account, J. Church 939,979; Chime, electric, S. E. Scovill 940,453; Chimney, ventilating, J. M. McIntosh 940,371; Churn, O. D. Welds 940,099; Cigar end or tuck forming machine, K. Helms 940,248; Cigarette and match box, S. Schendel 940,198; Circuit breaker, automatic magnetic, W. M. Scott 940,647; Clock, R. C. Saloch 940,617; Clock, pendulum actuated, E. W. Vail, Jr. 940,410; Clutch, T. H. Gerrard 940,002; Coating device, G. H. Hardman 940,593; Coin detector, H. T. Werden 940,568; Collapsible box or crate, G. A. Shraud 940,371; Comb, W. Jacobs 940,532; Combustion engine, C. S. Piestrak 940,474; Composition of matter, F. J. Conboy 939,982; Compounds and mixtures, method and apparatus for determining proportions in, L. Taylor 940,217; Concrete block molding machine, C. Colwitz 940,131; Concrete floor construction, reinforced, U. S. G. Athey 940,296; Concrete, means for filling holes with, L. E. Welsh 940,100; Concrete sidewalks, curbs, etc., apparatus for laying, E. L. Ransome 940,061; Concrete slabs, production of hollow reinforced, M. Milanovitch 940,041; Concrete steel construction, W. Mueser 940,399; Concrete structures, mold for making, J. M. Timmons 940,090; Concrete tile mold, B. T. Beckman 939,968; Condenser, steam, R. D. Tomlinson 940,648; Conduits, device for joining parts of, G. M. Warrle 940,098; Connector, T. A. Hammond 940,012; Cooking shelled peanuts, etc., machine for, C. O. Roe 940,557; Copper-nickel and other metals from copper-nickel matte, separating, H. L. Wells 940,292; Copy holder, F. M. Giddings 940,003; Cotton chopper, N. Robinet 940,279; Cotton picker, W. A. Phipps 940,274; Counting apparatus, automatic, G. F. Richmond 940,066; Coupling, See Car couplings 940,334; Coupling mechanism, W. D. Leftwich 940,225; Cuff holder, W. S. Arnold 940,059; Culinary utensil, W. Quinby 940,059; Cultivator, W. E. Johnson 940,159; Cup attachment, drinking, D. M. Simpson 940,204; Curb corners, nosing for, W. S. Clifford 940,432; Current collector, G. R. Forster 939,995; Curtain book, C. H. Maass 940,642; Cycle and bicycle stand, motor, F. C. Hoffer et al 940,250; Dental instrument, S. Quigley 940,058; Dental instrument, O. Neugebauer 940,351; Derailer, J. T. Farrell 940,139; Die, L. Swank 940,214; Disinfecting apparatus, P. J. Walsh 940,097; Disk tongue device, J. C. Roath 940,194; Display device, W. Marks 940,263; Distributor, J. W. Le Gore 940,538; Door, A. A. Wheeler et al 940,294; Door fastening device, M. Ritchel 940,362; Door hanger, A. Theyskens 940,088; Door hanger, W. D. Ferris 940,307; Door stop, C. Crockett 940,438; Double acting switch, C. J. Snelman 940,408; Draw box, E. H. Rooney roissee 13,041; Dressing machine reel, R. Knebel 940,603; Drier, C. E. Geiger 940,144; Drying apparatus for tea, grain, etc., S. C. Davidson 940,237; Drip pan, Menzl & Schwartz 940,040; Driving mechanism, J. J. Walser 940,095; Driving mechanism, variable speed, J. J. Walser 940,096; Driving mechanism, variable speed, H. C. Schroeder 940,201; Driving mechanism, variable speed, J. J. Walser 940,626; Dumping elevator, automatic, G. E. Richmond 940,065; Dust detonations, device for preventing, P. Schuster 940,075; Dust pan, W. E. Ballman 940,422; Dust separating tank, D. Fogarty 940,141; Dye and making same, azin, P. Ott 940,354; Dye and making same, brown vat, Engl & Kampen 940,586; Easel, E. Oldenbusch 940,472; Educational device, R. M. Vick 940,093; Egg case, foldable metal, A. R. Burleson 940,234; Egg separator, Bayless & Redman 940,119; Egg taster, W. Rigling 940,361; Eggs, mold for making nest, J. M. Southerland 940,208; Elastic fluid engine, C. V. Kerr 940,162; Electric circuits, protective device for, S. R. Bergman 940,578; Electric conductors, safety device for over head, E. Graud 940,525; Electric generator, E. T. Kenney 940,392; Electric heater, luminous, Howard & Cousins 940,021; Electric light, incandescent, J. T. Bigger 939,969; Electric machine, dynamo, C. P. Steinmetz 940,210; Electric machine, dynamo, B. A. Bebrand 940,632; Electric separator, G. D. Rogers 940,282; Electric switch, O. M. Knoblock 940,328; Electrical receptacle, G. W. Goodridge 940,526; Electricity in moving material, apparatus for neutralizing, W. H. Chapman 940,428; Electricity, means for neutralizing static, W. H. Chapman 940,431; Electricity, neutralizing static, W. H. Chapman 940,429; Electricity, process and apparatus for neutralizing static, W. H. Chapman 940,430; Electrode element for storage batteries, T. A. Edison 940,635; Engine construction, gas or gasoline, C. Herreshoff 940,650; Engine igniting apparatus, explosive, B. F. Stewart 940,374; Engine ignition system, explosion, P. R. Werner 940,376; Engines, silencer for internal combustion, W. L. Tobey 940,290; Engines, spark plug for internal combustion, M. Equeum 940,448; Engines, under-water exhaust outlet for internal combustion, W. L. Tobey 940,291; Engraving machine, P. J. Mayer 940,179; Engine cleaning machine, J. A. Jones 940,254; Etching machine, H. Schieder 940,480; Evaporating apparatus, J. Parker 940,473; Excavating apparatus, A. E. Lehmann 940,035; Excavator, drainage, M. G. Eunnell 940,126; Explosive, C. U. Buck 940,580; Explosive grenade, F. M. Hale 940,527; Explosive mixing machine, H. Talley 940,216; Farrier's implement, W. Rawalt 940,478; Faucet, J. Falasco 940,522; Faucet, A. J. Robinson 940,536; Faucet, neck, T. Davis 940,438; Faucet, J. Falasco 940,522; Feed bag, T. Brennan 939,971; Feed mechanism, differential positive, R. Milne 940,342