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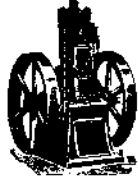
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flame is desirable, as in fire under a steam boiler, it is a common practice to wet the coal before firing it, for this reason. These facts will probably help you to explain the phenomenon you have observed.

(9663) W. G. M. asks: Will you please inform me through your Notes and Queries whether putting zinc in a stove affects in any way the formation of creosote in the chimney; if so, what is the theory? It is popularly said here that the zinc will prevent the evil. A. If zinc is put in a hot stove it will burn, forming dense clouds of a white powder, called zinc oxide. This could have no chemical effect on any other formation in the chimney, but it is not impossible that this white powder might prevent other substances from sticking to the walls of the chimney as readily as they otherwise would.

NEW BOOKS, ETC.

THE SECRET OF THE CIRCLE AND THE SQUARE. By J. C. Willmon. Los Angeles: The McBride Press, 1905. 12mo.; pp. 30.

In this small book the author endeavors to demonstrate the possibility of constructing a straight line equal to any given arc of a circle, and also of constructing a square equal in area to any circle, and vice versa, together with solutions of similar geometrical problems. Another attempted demonstration is the division of angles into any number of equal parts. The book is illustrated with eight geometrical figures, and the problems to be solved are clearly and concisely stated.

THE SPINNING AND TWISTING OF LONG VEGETABLE FIBERS. By Herbert R. Carter. Philadelphia: J. B. Lippincott Company, 1904. 8vo.; pp. 360; 161 illustrations. Price, \$5.

This book is a practical guide for the technical student and man engaged in the business, to the spinning of the long vegetable fibers, such as flax, hemp, jute, tow, and ramie. The same general principles underlie the preparing and spinning of all these long vegetable fibers, and so it is merely the details of the various processes which differ somewhat on account of the coarseness or special nature of the different fibers. The various different machines for spinning such fibers are described in detail in the present volume, and a thorough description of the most modern methods applied to the hankling, carding, preparing, spinning, and twisting of them is given.

REFUSE DISPOSAL AND POWER PRODUCTION. By W. F. Goodrich. New York: E. P. Dutton & Co., 1905. 8vo.; pp. 384. Price, \$5 net.

The sanitary destruction of garbage is one of the great problems of all large cities. The author of the present volume has gone into this subject very thoroughly, and, after describing the usual methods of disposing of refuse by dumping it at sea or on land, he goes into the modern and more scientific methods of disposal by burning it under a steam boiler for power-generation purposes. Some model electric lighting plants deriving their power from garbage are illustrated and described. All the very latest information on this important subject is given with complete figures. The book will be found very useful by all who have to do with the problem of garbage disposal on a large scale.

LES DECHETS INDUSTRIELS. RUCUPÉRATION—UTILISATION. By Paul Razous. Paris: Vve. Ch. Dunod, 1905. 8vo.; pp. 379. Price, \$4.20.

Much progress has been made in the last few years in the utilization of the waste products and residues of large industrial plants. In the present volume, M. Razous has shown this progress, and indicated what may be done with waste products in various industries. He first describes the waste products of usual power plants, that is to say, those products which result from the production of motive power, from oiling, from wiping and cleaning the engines, from the modes of lighting adopted, etc. He afterward describes the nature of the waste products and residues obtained in the various industries, and indicates the methods of utilizing them, and the processes by which sub-products of a value greater than the cost of obtaining them may be derived.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending

June 6, 1905

AND EACH BEARING THAT DATE

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

- Adding machine, Wolfe & Merten..... 791,849
Adding machine recording mechanism, W. H. Pike, Jr..... 791,941
Air brake slack adjusting device, L. T. Block..... 791,605
Anchor, ship's, R. Fowler..... 791,893
Animal catching device, W. McEnderree..... 791,933
Annealing box, W. E. Harris..... 791,901
Audiophone instruction apparatus or set, H. G. Pape..... 791,573
Axle box, car, W. W. Wallace..... 791,518
Axle gage, car, G. Rieinger..... 791,578
Axle lubricator, W. A. Jameson..... 791,697
Bag filling device, E. Kaiser..... 791,472
Bags or analogous packages, fastening attachment for, W. H. Coleman..... 791,609

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