

surgical and dental instruments. Outsiders will also pay 50 per cent. additional on: Basket-ware, bicycles, boots, candles, carriages, clocks, cordage, cream of tartar, glass, china, stone, and earthen ware; hardware, furniture, fancy goods, toys, firearms, potted fish, hops, nails, lamps, pianos, paper-hangings, paper, plated ware and pumps. The duty on cement is doubled against non-British countries, while that on tea grown in British dominions is removed. This progressive step on the part of Britain's most distant colony, will be welcomed by Canadian manufacturers, (for we take it that the colonies are included in the preference), as affording greater opportunities for trade, and at the same time creating a system which will render Great Britain and her colonies commercially self-sustaining.

LITERARY NOTES.

"Proceedings of Chemical and Metallurgical Society of South Africa," Vol. II., 1897-99, published by the Society at Johannesburg, Transvaal, R. W. Hunter, Edinburgh, and Engineering and Mining Journal, New York. 928 pages; size, $5\frac{1}{2}$ by $8\frac{1}{2}$.

In the working out of problems involved in the cyanide processes, the handling of low grade ores and problems of deep level mining, the Transvaal stands at the head of the list, and the work of this society is therefore of the highest value to the mining world. The volume gives the text and discussions upon a large number of papers by experts, with seventeen folding plates of diagrams illustrating the papers. These, with reports of committees and abstracts of articles from the mining press, make up a volume of unique value, admirably turned out from a typographical point.

"Modern Workshop Hints," by Robert Grimshaw, M.E. 428 pages, $4\frac{1}{2}$ by 7; published by Samson, Low, Marston & Co., London, Eng.

This work, by the well known author of the "Steam Engine Catechism," "Boiler Catechism," and other books of like character which we have recommended, is a handy book containing 581 hints with 528 illustrations of these hints and "kinks." The author has adopted the best ideas from United States, as well as British, shop practice, so that the book is up to date, and helpful to the expert machinist, as well as those who do not claim expert knowledge. The type is good, the cuts are clear, and an excellent feature is that the measurements are given in the metric as well as the English system. On the latter point, and in view of the letter in another part of this issue, it is worth while to quote Mr. Grimshaw: "Of the superior convenience of the metric system, the author, brought up to British units with their unphilosophical and unpractical ratios, but for some years past working almost exclusively with decimal and interconvertible units, can testify and can only regret the time in calculation lost under the old regime and praise the superior flexibility and convenience of the new."

"The Steam Turbine," by Robert M. Neilson; illustrated; 294 pages, 6 by 9; 2nd edition; published by Longmans, Green & Co., London, England, at 10s. 6d., net.

This is the first comprehensive work on the steam turbine, and the interest in the subject is shown by the fact that a second edition has been called for. In this edition, the Parsons and De Laval types have been described in greater detail, while a chapter has been added on the Westinghouse-Parsons, the Stumpf, the Schulz, the Curtis and Seger patents. Comparisons have been made with the hydraulic turbine and the reciprocating engine, the theory of the action of steam treated of, and accurate tests recorded, so as to give the reader the broad grounds of the author's conclusion, which is that the steam turbine will be extensively used in the future.

"Technical Mechanics," by Edward R. Maurer, Prof. of Mechanics, University of Wisconsin; 382 pages, $5\frac{1}{2}$ by 9; price, \$4; published by John Wiley & Sons, New York.

This is prepared as a text book on the theory of mechanical forces, primarily for students in engineering. The headings of some of the chapters will give an idea of the scope of the work: Force, equivalence of force systems, centre of gravity and centroid, attraction and stress, general principles of equilibrium, application of the principles of equilibrium, rectilinear motion of a particle, curvilinear motion, motion of a rigid body, rotation; work and energy, impulse and momentum, etc. Appendices treat of vectors, rates, dimensions of units, and second moments of area. The author does not aim to present the results of experimentation, or the practical application of the theory of mechanics, such, for instance, as the analysis of trusses, friction, balancing, etc., but rather to explain the principles, leaving the student to make his own applications. There are many diagrams, equations and formulae, and an immense amount of study must have been put into the work.

Other publications received are: Decimal Association, Botolph House, Eastcheap, London, Eng.; list of subscribers and report for 1903.

Telegraphie sans Fil l'œuvre de Marconi; published by Librairie Scientifique et Industrielle, Ramlot Freres et Soeurs, Bruxelles, Belgium. A description in French of the Marconi system; 64 pages with 88 engravings.

The World's Commerce and American Industries; 112 pages, with 86 graphic charts on the United States share of the world's trade. The Philadelphia Commercial Museum, Philadelphia, Pa. 50 cents.

Deep Gold Mining, by E. R. Faribault, C.E., of the Canadian Geological Survey; 16 pages, with folding plates, on the best methods of testing the deeper gold deposits of Nova Scotia. Published by Edwin Gilpin, Inspector of Mines, under authority of the Commissioner of Public Works and Mines, Halifax, N.S.

Handy Lumber Tables, for board, plank and scantling measure; 24 pages; price 10 cents. Industrial Publication Co., 16 Thomas St., New York.

American Railway Engineering and Maintenance of Way Association, L. C. Fritch, secretary, 1562 Monadnock Block, Chicago, bulletin No. 43, on ties, 34 pages; and bulletin No. 44, 87 pages, report of committee on yards and terminals.

Annual Report of City Engineer, Toronto, for 1902; 130 pages, with maps and plates.

North of England Institute of Mining and Mechanical Engineers, Newcastle-on-Tyne. Report of committee on mechanical coal cutting, part I on Longwall machines.

Armed Concrete Lattice-Girders; a pamphlet of 18 pages, on iron and concrete construction; by Max Emer, engineer, of Vienna. Published by Visintini & Weingaertner, Zurich, Switzerland.

Sixteenth Annual Report of Vancouver Board of Trade, to May, 1903; 126 pages, illustrated. Address Secretary, Molson's Building, Vancouver, B.C.

Bulletin No. 1 of Engineers' Club, of Toronto, containing sketch of the club's history, with constitution, list of members, etc. Willis Chapman, secretary, 103 Bay St., Toronto.

Terrestrial Magnetism, by Arthur Harvey, Toronto; synopsis of a paper read by the author before the Association of Ontario Land Surveyors, showing the connection between sun spots and the earth's magnetic disturbances.

Electrically Driven Shops, illustrated pamphlet; by Robert L. Warner; published by the Westinghouse Electric Mfg. Co., Pittsburg, Pa.

Influence of Electricity on the Development of Water Powers; reprint of a paper read before the N. E. Cotton Manufacturers' Association, by F. A. C. Perrine, D. Sc., Pittsfield, Mass.

Address to members of the American Park and Outdoor Art Association, in July, 1903, by J. W. Langmuir, of Toronto, chairman of Queen Victoria Niagara Falls Commission.