

New Books

SUCCESSFUL PATENTS AND PATENTING FOR ENGINEERS AND SCIENTISTS

Edited by M.A. Lechter, S. Lang, R.B. Famiglio, C. Clifford and R.J. Joenk
IEEE, Piscataway NJ, USA, 1995, 350 pp, US\$39.95

This manual, designed for engineers and scientists—beginners, gives a coverage of both US and international concerns. Forty articles answer a variety of patenting questions, e.g. conditions necessary for patenting, how to avoid pitfalls that preclude patent protection, how to research, read and interpret existing patents.

L.C. WOOLLACOTT AND R.H. ERIC: MINERAL AND METAL EXTRACTION: AN OVERVIEW

The South African Institute of Mining and Metallurgy, Johannesburg, South Africa, 1994, 412 pp., US\$70.00.

The intention of this book is to provide a concise overview of the processing of mines material that is comprehensive in scope and digestible in form. Both mineral beneficiation and extractive metallurgy are considered with each receiving about the same degree of attention. Because the overview will be of particular interest to geologists, mineralogists and mining engineers a slight bias has been introduced for their benefit. Those technologies that are closer to their areas of activities, namely ore properties, physical processing and mineral beneficiation, have been presented in slightly greater detail than have the other areas of the technology.

The book consists of thirteen chapters with the following titles: An overview of minerals engineering, The properties of mined material, Physical processing—sizing and size reduction, Physical processing—agglomeration and solid—liquid separation, Mineral beneficiation—the physical separation of minerals, Introduction to chemical extraction processes, Introduction to pyrometallurgy, Solid—state pyrometallurgy, Liquid—state pyrometallurgy, Gaseous—state pyrometallurgy, Hydrometallurgy, Electrometallurgy, Mineral and metal extraction routes.

A.J.S. SPEARING: HANDBOOK ON HARD—ROCK STRATA CONTROL

The South African Institute of Mining and Metallurgy, Johannesburg, 1995, 152 pp, hardcover, US\$60.00

The emphasis of this publication is that it is written as a handbook to be frequently used by mainly production and planning personnel, rock—mechanics practitioners, university students in mining and geology, and suppliers and contractors of rock—engineering related products and services.

Although some basic theory in the form of solid mechanics is included, the bulk of the handbook deals with practical issues. Topics covered include: basic geology with specific reference to the Witwatersrand Basin and the Bushveld Complex, basic rock-mechanics theory, common hard-rock mining methods, instrumentation and monitoring and others. Appendices included at the back of the book give information on rock-mechanics definitions, common rock mechanics formulae, SI units and conversion tables, mathematical relationships and addresses, telephone and fax numbers for most mining houses, mines, technical institutions, unions and related government departments.

MINING DIRECTORY, MINING AND MINE-EQUIPMENT COMPANIES WORLDWIDE

Don Nelson Publications Ltd., Barnet, Herts, UK, 1996, 800 pp, hardcover US\$159.00.

This directory lists most of the mining companies worldwide that produce coal, precious metals, base metals, rare earths and industrial minerals. Entries include company addresses, telephone and fax numbers, commodities mined and operations locations, subsidiaries, officers, management and directors. Also included are equipment manufacturers, construction companies, fabricating engineers and consulting companies.

TAILINGS AND MINE WASTE

A.A. Balkema Publishers, Brookfield, VT, USA, 1995, 131 pp, US\$55.00

This publication is the proceedings volume of a conference held in Fort Collins, CO, USA. The 14 papers included cover mine and mill tailings and mine waste, as well as current and future issues facing the mining and environmental communities. This includes subjects related to technical capabilities and developments, regulations and environmental concerns. Also discussed are mine waste reclamation and remediation, protective liners and covers, design of tailings and mine waste facilities, ground water and surface water quality as related to mining and mining pit water chemistry.