Studies in Modern Topology. P. J. Hilton, Ed. Mathematical Association of America, 1968 (distributed by Prentice-Hall, Englewood Cliffs, N.J.). xii + 212 pp., illus. \$6. MAA Studies in Mathematics. vol. 5.

Suggestions to Authors of the Reports of the United States Geological Survey. U.S. Department of the Interior, Washington, D.C., ed. 5, 1958 (available from Superintendent of Documents, Washington, D.C.). xii + 225 pp., illus. \$1.75.

Symposia on Theoretical Physics and Mathematics. Vol. 6. Lectures presented at the Fourth Anniversary Symposium of the Institute of Mathematical Sciences, Madras, India, 1966. Alladi Ramakrishnan, Ed. Plenum, New York, 1968. xii + 294 pp., illus. \$15.

Symposia on Theoretical Physics and Mathematics. Vol. 7. Lectures presented at the Summer School of the Institute of Mathematical Sciences, Madras, India, 1966. Alladi Ramakrishnan, Ed. Plenum, New York, 1968. xii + 193 pp., illus. \$12.50.

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Techniques of Materials Preparation and Handling. R. F. Bunshah, Ed. Interscience (Wiley), New York, 1968. xiv + 409 pp., illus. \$16.95. Techniques of Metals Research, vol. 1, part 1.

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284 pp., illus. \$8.

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Bennis and Philip E. Slater. Harper and
Row, New York, 1968. xii + 147 pp.

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Toward the Year 2018. Edited by the Foreign Policy Association. Cowles Education Corp., New York, 1968. x + 177

pp., illus. \$5.95.

Traité de Biologie de l'Abeille. Rémy Chauvin, Ed. Vol. 1, Biologie et Physiologie Générales (xvi + 584 pp., illus., 150 F.); vol. 2, Système Nerveux, Comportement et Régulations Sociales (viii + 566 pp., illus. 150 F.); vol. 3, Les Produits de la Ruche (viii + 400 pp., illus., 116 F.); vol. 4, Biologie Appliquée (viii + 434 pp. illus., 116 F.); vol. 5, Histoire, Ethnographie et Folklore (viii + 152 pp., illus.,

46 F). Set, 578 F. Masson, Paris, 1968.

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Ultra High Frequency Propagation. Henry R. Reed and Carl M. Russell, assisted by W. M. Browne and J. W. Plummer. Science Paperbacks (Chapman and Hall), London, ed. 2, 1968 (distributed in the U.S. by Barnes and Noble, New York). xiv + 562 pp., illus. Paper, \$5.

Yams. An Account of the Nature, Origins, Cultivation and Utilization of the Useful Members of the Dioscoreaceae. D. G. Coursey. Humanities Press, New York, 1968. xiv + 230 pp., illus. \$9.50.



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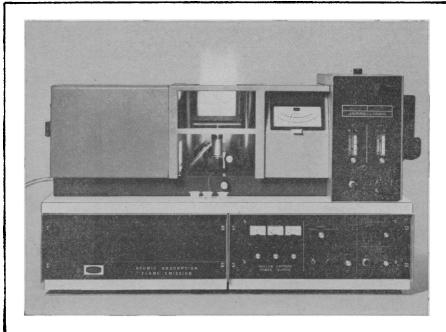
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