

of the point-infection type of model to the question of possible variation in virulence of the microorganism during the evolution of the epidemic wave. It is probable that such distinctions, if and when they may occur, are too subtle to be made in simple mathematical models.

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**Man-Made Textile Encyclopedia.** J. J. Press, Ed. Textile Book Publishers (Interscience), New York, 1959. xxx + 913 pp. Illus. \$27.50.

**Review of Textile Progress, 1958.** vol. 10. M. Tordoff and C. J. W. Hooper, Eds. Textile Book Publishers (Interscience), New York; Butterworths, London, 1959. 494 pp. \$8.

**Physical Methods of Investigating Textiles.** R. Meredith and J. W. S. Hearle. Textile Book Publishers (Interscience), New York, 1959. ix + 411 pp. Illus. \$13.

**Friction in Textiles.** H. G. Howell, K. W. Mieszkis, and D. Tabor. Textile Book Publishers (Interscience), New York, 1959. 263 pp. \$6.75.

*Man-Made Textile Encyclopedia*, with authoritative contributions by 148 textile scientists, presents concisely and interestingly an unbelievable amount of information on over 100 technical subjects. These subjects are grouped into chapters on the molecular properties of raw materials; fiber manufacturing, characteristics, and identification; processing into yarns, threads, cords, and fabrics; textile engineering principles; dyeing, printing, and finishing; standards for specific uses; apparel manufacturing and renovation; economics and statistics; world fiber trade marks; and glossary and indexes. Many excellent photographs, illustrations, and tables are found throughout the book.

In sharp contrast to this encyclopedia is the *Review of Textile Progress, 1958*, the tenth volume of this important series, in which the main contributions of more than 3000 papers published during 1958 are condensed. The subjects covered include fiber physics; the chemistry of cellulose, wool, silk, regenerated protein, synthetic, and bast fibers; the production of cotton, long vegetable, wool, animal, silk, cellulose, and synthetic polymer fibers; the conversion of fibers into yarns; warp sizing

and sizing materials; weaving preparation and weaving; knitting; coloring matters, dyeing, printing, and finishing of fabrics; chemical and physical testing; laundering and dry-cleaning; building and engineering; and, finally, industrial applications of textiles. This monumental survey reviews the contributions made during one year to the textile industry throughout the world.

*Physical Methods of Investigating Textiles* describes modern experimental methods and techniques used for determining the structure and physical properties of textiles, including x-ray techniques; infrared spectroscopy; electron microscopy; optical microscopy; fiber dimensions; density, moisture, and swelling; yarn and fabric structures; mechanical properties of fibers, yarns, and fabrics; transmission of heat, moisture, and air; frictional behavior of textiles; optical properties; electrical properties; and the applications of nuclear physics. The text includes many excellent illustrations and photographs, and most of the reviews contain extensive and up-to-date references.

*Friction in Textiles* covers a most timely subject since the surface or frictional properties of fibers greatly affect their spinning and processing potentialities, the mechanical properties of spun yarns, and the performance of the final textile products. Part 1, entitled "Theory of friction and lubrication," consists of three basic chapters. The first gives an excellent discussion of the mechanism of friction, which is applicable to any material in general; the second extends this general discussion specifically to plastics and fibers, and the third discusses the mechanism of lubrication. Part 2, entitled "Friction in textile processing," includes chapters on friction of wool; friction in spinning, winding, and during conversion of yarns into fabrics; the effect of inter-fiber friction on the strength of tire cord; and friction in fabrics. Part 3, entitled "Test methods," includes chapters on the measurement of friction of yarns and of fibers, the control and measurement of tension in processing, and the measurement of abrasion. The book includes 10 pages of tables on some typical values of friction for yarns and fibers. Excellent diagrams are used throughout the book, and extensive references to literature are given at the end of each chapter.

I feel that these four books fill an important gap in textile literature and are an excellent indication of the sci-

entific stature of the textile industry in all of its many and complex phases. The books are recommended not only to scientists and technical personnel working in the industry, but to those interested in authoritative information on modern textile science and technology. They provide important source material that can be used by the libraries of the schools, colleges, and universities training the future leaders of the textile industry. Finally, the thought-provoking discussions and the challenging problems presented in these books should offer inspiration and guidance to the talented and searching minds of students and teachers.

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**Some Problems in Chemical Kinetics and Reactivity.** vol. 2. N. N. Semenov. Translated by Michel Boudart. Princeton University Press, Princeton, N.J., 1959. x + 330 pp. Paper, \$4.50.

**Some Problems of Chemical Kinetics and Reactivity.** vol. 2. N. N. Semenov. Translated by J. E. S. Bradley. Pergamon Press, New York, 1959. x + 168 pp. \$5.

The first volumes of these translations were reviewed by Harold S. Johnston and Henry Eyring, respectively [*Science* **129**, 1419, (1959)]; in my estimation, these reviews cannot be improved upon as evaluations of Semenov's work, and no attempt will be made to do so. However, since two translations of this important work were made, a comparison is in order.

I believe it to be axiomatic that what we want to read is what Semenov has to say; therefore, the truer the translation and the less tempering by the translator the better. In the Pergamon edition, chapter 1 of part 4 is called "Thermal ignition," while in the Princeton edition it is referred to as "Thermal explosions." In the original it is called "Thermal inflammation" (in the ballistic not medical sense), but in the preface Semenov states that he included a chapter on "Thermal explosion"; this gives some justification to the Princeton version. On page 96 of the Princeton version there is a statement ". . . the agreement . . . is not bad at all. . . ." This is a literal rendition of the Russian (page 433), but whereas in Russian the *not bad* is a reserved, toned down