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BOOK REVIEW

Sellier KG, Kneubuehl BP (1994) Wound Ballistics and the Scientific Background. Elsevier, Amsterdam New York, 479 pages, Dfl. 260.00. ISBN 0-444-81511-2

Several textbooks on ballistics are available, predominantly dealing with interior and exterior ballistics. There are also numerous publications on the forensic aspects of wounds caused by firearms. Wound ballistics form the basis on which gunshot wounds are examined from a forensic point of view. Despite the fact that many original articles on wound ballistics have been published, there are relatively few comprehensive books on the subject. This gap is now filled by Sellier and Kneubuehl's book.

A strong point of this book is the understanding of physical processes leading to biological effects. In the chapter "Physical Basics of Wound Ballistics", the principles of mechanics and fluid dynamics as well as measurement techniques are described and explained. Even scientists who have been concerned with wound ballistics for a long time are likely to benefit from this chapter. After outlining the history of weapons and ammunition and a short presentation of interior and exterior ballistics, the authors describe the main aspects of general wound ballistics and the use of tissue simulants. The special wound ballistics of short handguns and shoulder weapons are explained in separate chapters, emphasizing their special properties. A large chapter contains numerous tables on material properties, caliber and projectile designations, ballistics data of ammunition, twists, shotgun calibers and shot pellets as well as firing tables. The Anglo-American and the metric systems are considered together with conversion tables. The collection of tables and an English, German and French glossary of ballistic terms may be of great help in the daily routine. The bibliography and references contain more than 350 literature sources.

The authors explain and evaluate the different concepts in wound ballistics. Not everybody will agree with every evaluation. For example, the authors seem to favour the Kinetic Energy Deposit Concept for measuring the effectiveness of handgun ammunition. This method has been rejected by FBI workshops and Martin Fackler among others.

Nevertheless the authors have succeeded in writing a comprehensive and precise textbook on wound ballistics which is easy to read despite the fundamental physical background. The book will be of great value to forensic scientists, pathologists, criminal lawyers and trauma surgeons. It can be used as an introduction to the subject as well as a reference book.

The book is available in North America from Elsevier Science Inc., P.O. Box 945, Madison Square Station, New York, NY 10160-0757, USA and in the rest of the world from Elsevier Science B.V., Sara Burgerhartstraat 25, 1055 KV Amsterdam, The Netherlands.

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