BOOK REVIEWS


This monograph (in Dutch, but with a brief summary in English) is a record of an extensive clinical experience with the ultra-low-frequency ballistocardiograph designed by Professor H. C. Burger of Utrecht. The author breaks new ground by interesting himself in clinical studies made not only with the well-known force ballistocardiogram, but also by records of its first and second integrals, that is, records of the velocity and displacement of the body's center of gravity. Extensive statistical tables of normal values testify to the care and exactitude of the study, but there are no calibrations published and so no normal standards for amplitude. Examples of the 3 types of records are illustrated for a wide variety of clinical conditions and many deviations from the normal are pointed out. The reviewer is happy to report that a full English translation is soon to be available.

ISAAC STARR


This monograph, written in excellent English by a Dutch biophysicist trained in the laboratory of Professor Burger of Utrecht, is characterized by a physical and mathematical approach to the theoretical problems of the ballistocardiogram and, to a lesser degree, to those of the elasticity of the blood vessels and the plethysmograms of the arm and leg. A major part is concerned with problems of ballistocardiographic instrumentation that are approached mathematically by means of formulas long used by physicists in the solution of vibration problems. It is concluded that the ultra-low-frequency ballistocardiogram, when displacement is recorded, gives a good reproduction of the movement of the body center of gravity with time. When velocity and acceleration are recorded, one obtains records related to the momentum and the forces respectively. These records are believed to be more accurate than those secured by high-frequency instruments, or with low-frequency critically damped instruments. The author also attempts the theoretical prediction of the ballistocardiogram and of the peripheral plethysmograms from anatomic and physiologic data already in the literature, with good agreement between theoretical and experimental results. This is an interesting monograph on the physical approach to ballistocardiographic theory and instrumentation, and it contains a large amount of original material.

ISAAC STARR


This monograph (in French) is essentially a review and its contains very little original material. There is an excellent and up-to-date review of the modern instruments and the physical principles underlying them, followed by a critical review of our knowledge of the normal ballistocardiogram and its changes in various clinical conditions. There is an extensive and well-chosen bibliography.

ISAAC STARR


This is an extensive clinical study (in Spanish). All the records published in the text have been obtained with a shin-bar apparatus, the only method the author has had access to in his clinical experience. He is well aware of its limitations and makes no attempt to compare his results with those obtained with other technics. The bibliography attached to each chapter is extensive and some hypothetical interpretations of the ballistocardiogram are presented with lucidity and clearness.

ALDO CORBASCO


A well-documented, very complete, and highly readable review (in Spanish) of the clinical applications of ballistocardiography.

The experimental background and the physical concepts that are of immediate concern to the physician are presented in an interesting fashion together with a review of the various types of ballistocardiographs, their advantages and respective drawbacks.

The treatment of the literature is extensive and accurate. This is one of the most complete works on ballistocardiography that has appeared. The bibliography contains 379 titles.

ALDO CORBASCO

447 Circulation, Volume XVIII, September 1958

The author describes a high-frequency table in which the sensing element is constituted by a piezoelectric capsule connected to an electrocardiographic amplifier. The records published are those commonly obtained on high-frequency beds. A record of transverse movement of the chest is also described. The clinical applications of the high-frequency ballistocardiogram are discussed and illustrated in detail. To the book has been appended a bibliographic survey complete up to the time of publication. A well-written and attractive monograph, probably the best published in Italy so far.

Aldo Corrascio

BOOKS RECEIVED

Circulation is very glad to acknowledge the receipt of the following books. Insofar as space permits, as many appropriate books as possible will be reviewed.


