

## EDITORIAL

ANESTHESIOLOGY has been proclaimed as a science, since its working hypotheses are derived from the application of many laws of physiology, pharmacology, anatomy, physics and chemistry. It is also designated as an art, since it requires, in common with other arts, an intuitive feeling, often referred to as "the feel of the patient," and the aptitude to apply it instinctively.

However much of an art anesthesiology may be, the anesthetist, regardless of his natural endowments, is not born, like the poet, but is required to have long and arduous training. In the final analyses, it is the application of the science of anesthesiology that constitutes the art of anesthesiology. Hence the need to learn more of the science in order to become more of a master in the art.

The recent advances in anesthesiology have focused attention on the indispensable need of a thorough knowledge of the fundamental sciences, a need emphasized by its patron, surgery. In fact it follows that whatever improvements have accrued are but the results from efforts to keep abreast of the rapid strides of surgery. The modern surgeon demands from his accessory sciences whatever degree of perfection he already possesses or strives to attain. He does not go about his manipulations without a thorough understanding of the nature of disturbances that may already be present or that will result from his therapeutic efforts. Likewise he does not permit his assistant to choose or use from among the numerous and complex drugs and methods those that are without the anesthetist's appreciation of their normal and untoward effects in the abnormal as well as in the healthy individuals.

The science of anesthesiology is not learned with a knowledge only of the fundamentals—the basic sciences. Knowledge of the clinical picture also must be gained. This clinical knowledge is not gathered from books or periodicals; neither will it be obtained solely from lectures or observing others. Books, lectures, and clinics are all indisputably useful; they refresh the old timer and teach the beginner the rules of the game, but there is no substitute for practice to bring the play toward perfection.

The many complications that may arise during and after the administration of anesthesia fortunately are not of frequent occurrence, hence, in an average practice, thousands of administrations may often be made before the anesthetist has seen them sufficiently often to be familiar with the more common. No yardstick may be chosen to define in numbers of cases or time of practice required to become an anesthetist, since individuals vary widely, but, on an average, it takes the

graduate in medicine at least three years of intensive work to obtain a thorough mastery of the essentials. In addition, it requires another five years to acquire the refinements of the specialty and the ability to deal with any emergency confidently and promptly.

Years of practice and adequate preparation alone will not be sufficient to maintain the anesthetist as a real specialist. He is required to do continuous post-graduate work which should not be of the kind secured from short refresher courses, although these have a definite value. The more essential kind of post-graduate work is that done by the anesthetist who carefully observes all of his patients and interprets the true nature of their reactions. In addition he keeps accurate records, reviews his notes at intervals, reads the current literature and discusses his observations with his fellow physicians.

The true specialist, the master of the subject, in anesthesiology, as in any profession or skilful pursuit, instinctively possesses the nature of it. He quickly discloses in the inevitable emergencies whether he possesses that uncalculated aptitude which distinguishes the first rater from the second rater. The first rater in anesthesiology has gained the distinction by clinical work as well as study.

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#### MEETING OF THE NATIONAL FIRE PROTECTION ASSOCIATION

BALLROOM, HOTEL ROYAL YORK, TORONTO, ONT.

May 16, 1941

1. Preventing Operating Room Explosions.  
By J. Warren Horton, Sc.D., Massachusetts Institute of Technology, Cambridge, Mass.
2. Committee Report: Standards on the Prevention of Explosions of Anesthetic Gases in Hospital Operating Rooms.  
By H. E. Newell, Chairman of the Committee on Gases, National Fire Protection Association.