



Carl Waldemar Walter



Carl Waldemar Walter, Clinical Professor of Surgery Emeritus, died May 5, 1992 at Stillman Infirmary of complications following a stroke which had occurred six months earlier, the results of atrial fibrillation. He was 86 years old.

He left his wife, the former Margaret Davis of Holliston, and six children; Carl, Martha, David, Alice, Linda, and Margaret, 14 grandchildren, two brothers and a sister.

He was born in Cleveland, Ohio on November 30, 1905 and was educated there until graduating from high school. His grades were good and he attracted the attention of Dr. Elliott Cutler, then Professor of Surgery at Western Reserve and Chairman of the Cleveland Scholarship Committee. Carl had been

offered scholarships at Yale and Michigan but chose to go to Harvard at Dr. Cutler's urging. To help pay his way, he did house cleaning, dish washing, managed ticket takers at the Harvard stadium and delivered newspapers. He graduated cum laude in 1928. He abandoned thoughts of a career in chemistry, and again at Dr. Cutler's insistence, applied to and was accepted by Harvard Medical School and graduated in 1932.

While a student there, he was exposed to Dr. Harvey Cushing. One day, he was involved in trying to speed a direct blood transfusion in the operating room from a living donor to a patient undergoing a craniotomy. Because of the deterioration of the patient, too much pressure was applied and the tubing exploded. Carl swore that there must be a better way.

During his subsequent residency in Surgery at the Peter Bent Brigham Hospital, he was instrumental in founding a blood bank thereby avoiding the need for such direct donor-to-patient transfusions. He utilized the newly discovered preservative sodium citrate, first in glass flasks evacuated of air. Problems with lysis of red cells and contamination from air during administration led Carl to develop an airless plastic bag

and tubing of non-wettable material. This was perfected in 1947, found use in the Korean War, and is now in use world wide. For this, he received a Silver Medal from the American Society of Mechanical Engineers. This probably was Carl's greatest contribution to medicine.

Not only was he an excellent surgeon but also a determined teacher of surgical technique. His course in dog surgery at the Medical School was unforgettable, for he not only instructed in the proper use of instruments, but goaded the students in his gruff manner to work efficiently and speedily. The "patients" were followed closely and lovingly and many ultimately went home with their surgeons. Carl had a great concern for such animals. He was involved in the establishment of the New England Primate Center and Director of the Massachusetts Society for Medical Research which set standards for the proper care of animals in research.

Those who took his course in aseptic technique in the Medical School will never forget how the fluorescent powder, which he implanted by handshake on a few students as they entered the amphitheater, soon spread all over everything within just a few minutes of normal activity, so vividly illustrating the need for hand-washing after each patient contact.

In 1995, Carl established and directed the Environmental Sepsis Laboratory at the Peter Bent Brigham Hospital. By the use of bacteriophage typing of staphylococcus organisms, he and Dr. Ruth Kundsinn and others helped surgeons track offending organisms to their source. With instant action and dogged determination, this group was able to track six operative infections on one surgical service to the tonsillar crypts of the child of one of the residents on the staff. An epidemic of puerperal sepsis at the Boston Lying In Hospital was traced to a single member of the delivery team.

The use of ultraviolet light in operating rooms during surgery, which Carl urged, has markedly reduced the infection rate for two surgical specialties at the Brigham and Women's Hospital.

To improve proper sterilization of instruments, Carl developed thermostatic controls and produced them at his Fenwal Corporation established in Holliston in 1935. This company was created with the help of Wilfred Turenne, then a refrigerator service man, and with the financial support of Thomas Fenn, investment counselor. Fenwal made thermostatic controls that ended up not only in hospital sterilizers, but in fish tanks, fighter planes, commercial jet aircraft, and ultimately in rockets and missiles. Fenwal entered the field of fire and explosion detection for industry and aircraft and also developed electronic gas ignition systems which replaced the conventional pilot light. Soon other organizations were established: Fenwal Laboratories, Fenwal Electronics, Fenwal International, and Fenwal controls of Japan. Appropriately, Carl was on the Harvard University Committee on University Relations with Corporate Enterprise. He was particularly interested in fire and electrical shock hazards and chaired the National Fire Protection Association Committee on Hospital Safety. One year before his retirement from surgical practice in 1972, he received from the Society of Manufacturing Engineers the Interprofessional Corporation Award, for uniting the spheres of medicine and engineering.

Throughout his career, he was determined to return to Harvard what he had gained from it. His retirement activities included the Harvard Medical School Alumni Fund of which he was treasurer and ultimately chairman for a total of 17 years. During his tenure as Chairman, the fund collected over 20 million dollars of which eh, himself, contributed at least eight. He was devoted to teaching. He established a fund to support fellowships for student research and created several professorships at the Medical School.

He had the unusual opportunity of working under five Harvard University presidents, particularly remarkable, as President Derek Bok said, since they “have an annoying habit of serving for uncommonly long periods of time.” Toward Carl’s later years of retirement, he turned his remarkable energies toward the goal of improving the whole university. President Bok described him as “outspoken, opinionated, stubborn, combative, absolutely fearless in confronting error, stupidity, laziness or incompetence, in all of its forms, wherever he found it, in the operating room, in the board room, certainly and not least in the administration of Harvard.

Carl Walter was also a sensitive and thoughtful person, and a loyal friend. He had a burning interest in teaching, which, after all, is what a medical school is all about!

Time does not permit more reminiscences today but the comments of the entire committee will be published in longer form in the near future.

Respectfully submitted,

Menelaos Aliapoulous

Clifford Barger

Wiley Barker

Tague C. Chisholm

Clement Hiebert

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William Johnston

Ruth Kundsinn

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Joseph Murray

John Shillito