details of these cases are very instructive. In six the driver suddenly saw another car directly in front of him and accelerated. In three, he lost control on a curve; and in three more he first touched another car or avoided a pedestrian, and then accelerated wildly and crashed fatally.

On this basis, and until fuller data are available, the element of "car out of control" may be taken as about 10 per cent. of all serious automobile accidents. Perhaps when this element is more generally looked for, it will be found in much larger percentage. And, if this estimate is correct, the addition of a safety pedal to the present controls of our cars should effect a corresponding saving of life.

Whatever the percentage, this is certain: Until all cars are fitted with a safety pedal or some equivalent device, accidents similar to that referred to in the opening paragraph of this paper will continue.

OBITUARY

CHARLES R. BARDEEN—1871–1935

ON June 12 there died at his home in Madison Dr. Charles R. Bardeen, dean of the University of Wisconsin Medical School. Death was due to a pancreatic lesion which was followed by liver involvements. His passing closed a life rich in accomplishment and brought a profound sense of loss to his colleagues, associates and the thousands of students in all parts of the world who had come under his influence.

Although Dr. Bardeen was born in Kalamazoo, Michigan, his boyhood home was in Syracuse, New York. The father was an educator and planned his children's education with care. Before entering college the son was sent to the Teichmann school in Leipzig, Germany, where he remained for a year. He always credited this experience with having laid the foundations for clear reasoning and a certain method of direct approach to fundamentals which later characterized all his research, teaching and public activities.

In 1889 he entered Harvard University, graduating in 1893. He was immediately attracted to the opportunities offered by a new medical school, that of the Johns Hopkins University. He entered the first class of this newly established institution and received his M.D. in 1897. Since his name headed the class roll alphabetically he was actually the first person ever to receive a Hopkins' medical degree. Among his classmates were three others who have made national reputations: E. L. Opie, W. G. MacCallum and Richard P. Strong.

Following his graduation, Dr. Bardeen was appointed assistant in anatomy at Johns Hopkins, later becoming associate and then associate professor. In 1904 he was called to Wisconsin by President Van Hise to be professor of anatomy and to lay the plans for a medical school. The founders of medical education at the university were President-emeritus Birge and Dr. William S. Miller, who in the department of zoology had already instituted certain pre-clinical courses. Dr. Bardeen was the founder of the medical school. In 1907 the legislature authorized the establishment of a two-year school and the professor of anatomy became Dean Bardeen. Around himself he collected a strong faculty. All the students were forced to do their clinical years at other institutions, but this quickly established the fact that unusually well-prepared young people were coming from Wisconsin. With the building of the Wisconsin General Hospital the full four-year medical course was established in 1925. Following this Dr. Bardeen secured the erection of the Service Memorial Institutes, the Student Infirmary and the Orthopedic Hospital.

In 1932, in honor of his twenty-fifth year of service as dean of the Medical School, the University of Wisconsin bestowed on him the LL.D. degree. At a banquet attended by many representatives of neighboring institutions, colleagues and students his portrait by Grenhagen was unveiled.

Dr. Bardeen was a scientist, an educator and an administrator. To these three fields of activity he brought enthusiasm and rare judgment. He thought continually of the problems confronting the physician, the student and the patient. He never spared himself and he was as free of ostentation as is humanly possible. The many honors that came to him were thus tributes to his real ability.

Dr. Bardeen's publications make up a list of ninety-six titles. The papers fall into two groups; those which are strictly scientific reports and those which deal with medical education. Among the former group are several that have far-reaching significance. His earliest work had to do with the changes following superficial burns and his observations are still quoted by all students of the subject. Many titles have to do with developmental and experimental morphology. He early made use of the x-ray and was one of the first in this country to study the effect of this form of energy on living cells. His scholarly work on the "Height-Weight Index of Build in Relation to Linear and Volumetric Proportions and Surface-Area of the Body" was published by the Carnegie Institution. This, as well as his study on the relation of heart size to body, might have opened up many physiological and clinical problems. He first proposed determining the size of the heart from its x-ray silhouette, a method

now in universal clinical use. In Morris's "Human Anatomy" he was asked to write the section on "Musculature," a tribute to his anatomical knowledge. All his scientific work has been accurate, authoritative and of permanent value.

As an educator Dr. Bardeen was not only a classroom teacher of power, but he closely studied educational problems from a social point of view. The student, the physician and the public always formed a trilogy of which he was keenly conscious. Each must be kept in balance and its right preserved. The right of the student was to be well taught; the right of the physician was to be independent and to have scientific medical help at hand; the right of the public was always to have the best possible medical care. Some such philosophy was at the bottom of all his writings and educational policies. His idea of a "preceptorship" for senior students depended on such principles. The student was not only profiting from an extensive clinical experience, but he was also serving as a stimulus to his preceptor. The Medical School was thus extending its teaching sphere to all parts of the state. The patient must ultimately benefit in this general uplift.

Dr. Bardeen's contributions to medical pedagogy have been notable. He introduced the use of the x-ray in teaching anatomy. His report made to the American Medical Association on the teaching of his science had a wide following all over the United States and Canada. His papers on the buildings and equipment of medical schools brought together much useful material.

Dr. Bardeen was a member and often an officer of many national scientific societies, among which were the American Medical Association, the American Association for the Advancement of Science, Society for Experimental Medicine and Biology, Society of American Zoologists, Society of Naturalists, Society of American Anatomists, Radiological Society of North America and the Wisconsin Academy of Science. In 1916 he served as president of the Association of American Medical Colleges. In 1920 he was honored by election to the presidency of the State Medical Society. In 1929 he participated in the White House Conference on Child Health and Protection and wrote the section on "Human Types." He also served for several years in the National Research Council.

Even with advancing years and constantly increasing administrative duties Dr. Bardeen never let his interest flag in medical problems. He was recently called upon to administer the Bowman Cancer Fund, and in preparation for this he visited the principal eastern research centers. Those who accompanied him never ceased to marvel at the many friends he found, the quiet direct manner with which he secured valuable information and the understanding he developed of the many aspects of the cancer problem.

With all his duties, Dr. Bardeen found time for local social undertakings. He served as president of the Madison General Hospital Association, and under his leadership the west wing of that institution was built. He was one of those largely responsible for the establishment of the University Club and he was for a time its president.

Dr. Bardeen was twice happily married. Three sons and a daughter survive the first marriage and his widow and a daughter the second. Although not interested in the usual routine of society, Dr. Bardeen was never happier than when entertaining a group of friends in his home. His conversational powers and his broad interests made him the most agreeable of hosts.

Dr. Bardeen's scientific studies, his plans for medical education and his development of a well-rounded successful medical school are his permanent contributions to the university and the state.

WALTER J. MEEK

CHARLES LOOMIS DANA

DR. CHARLES LOOMIS DANA, born in Woodstock, Vt., in 1852, died at Harmon-on-Hudson, on December 12, 1935, aged eighty-three years. He was one of the earliest and most distinguished neurologists in America, and had been profesor of nervous diseases at Cornell Medical College since 1899. He graduated from Dartmouth in 1872 and in medicine from Columbia in 1877. In later life he received the honorary degree of doctor of laws from his alma mater and also from the University of Edinburgh. He published a "Textbook of Nervous Diseases" in 1892. He naturally became president of the New York Neurological Society early in his career, and subsequently president of the American Neurological Association.

It is not often that a specialist is so outstanding in his profession as a whole that he would be singled out as a leader in medicine, but the Academy of Medicine of New York has twice in its long life elected a neurologist as its president—Dr. Dana in 1914–16 and Dr. Sachs more recently. Dr. Dana made many valuable scientific contributions to the progress of neurology. He was an unusually clear thinker and expositor of his ideas and a most excellent teacher. He was indefatigable as a student in his own field, and an accomplished scholar in areas outside of medicine, in history and literature. His intimates found him a kindly, genial, loyal friend, ready to help those in need of help and to further innumerable enterprises for the public good. He was always sincere, sometimes austere, but ever evinced a delightful sense of humor.