

**THE
AMERICAN
CLINICAL
AND
CLIMATOLOGICAL
ASSOCIATION:
1884–1984**

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ACKNOWLEDGMENTS

I am deeply indebted to R. Carmichael Tilghman, Richard J. Johns and Nicholas P. Christy for reviewing the manuscript and making helpful suggestions; to Theodore E. Woodward, John B. Graham and the Countway Library in Boston for access to photographs.

For furnishing me with comments about the activities of the American Clinical and Climatological Association, I wish to express my appreciation to William B. Bean, F. Tremaine Billings, Jr., David P. Earle, Jr., Lewis B. Flinn, James W. Haviland, John E. Howard, Rudolph H. Kampmeier, Roger S. Mitchell, Edward S. Orgain, Stewart Wolf, and C.C.J. Carpenter.

The preparation of the manuscript was made possible by a grant from the Kaiser Family Foundation.

I greatly appreciate the excellent assistance of Susan Abrams and Patricia Oldewurtel in the assembling of the manuscript and its preparation for publication.

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PREFACE

The past century has been one of unprecedented advances in medicine. At the beginning of this century, American medicine was in a deplorable state, but a small group of physicians and scientists who recognized the significance of developments in Europe set about to improve medical education, research and practice in this country. The ensuing changes in the United States improved the scientific base of American medicine and motivated those who were to build upon the new foundation. Laboratories for anatomy, bacteriology, biochemistry, pathology, physiology and pharmacology became essential features of medical schools. Hospitals, which became the locus of clinical instruction in the various branches of medicine and surgery, developed closer ties with the medical schools. These hospitals also became the institutional setting for the training of interns and residents, whose education was supervised by the medical school faculties. This reorientation of medicine and the recognition of the specific cause of some of the most widespread diseases led to a surge of interest in prevention of illness and improvement in the practice of medicine generally. Because groups of physicians interested in a particular area of medicine or surgery needed to exchange views, special societies were organized to provide a forum for the presentation of new developments, to allow for communication among these specialists, and to provide for dissemination of knowledge in the particular field to physicians in general.

The American Climatological Association was such an organization, bringing together physicians concerned to a significant degree with tuberculosis and its treatment by residence in a suitable climate. Over its 100 years, the society has expanded its field of interest to that of general medicine—with a corresponding change of name to the American Clinical and Climatological Association. Its membership comprises physicians engaged in both academic pursuits and clinical practice.

Since 1884, the minutes of the yearly meetings, the scientific papers presented, and the discussions of these papers have been published in an annual volume of *Transactions*. These official records, together with personal reminiscences of various members, have been the main source material for this volume. Biographical notes from a variety of sources are intended to show the changing backgrounds and career patterns of the Association's most active physicians. (Further details of the scientific papers may be found in the various annual volumes.) A chronological format for this history seemed most appropriate to accommodate the information available and reflect most vividly the changing scene of medicine through the activities of the Association. Along with the impact of the rapid advances in medicine on the Association, this chronological approach shows the Association's evolution into its present vigorous state, providing a place for the presentation and critical discussion of the events that form the cutting edge of progress in internal medicine.

Chapter 1

INTRODUCTION THE STATE OF MEDICAL SCIENCE IN 1884

No one could have prophesied in 1884, when the American Climatological Association was born, that the next century would be a period of medical progress beyond measure, and that American medicine would contribute the most to the advance. But in retrospect, one can see that many of the principal elements initiating and sustaining the forward movement were already visible:

1) Prominent educators had recognized the deplorable state of medical education and were beginning to do something about it. Their efforts would soon be strengthened by the benefactions of several wealthy philanthropists, including John D. Rockefeller, and by the return to American medical schools of young men who were then being trained in the foremost clinics of Europe. Representatives of 22 medical schools met in 1876 to form a provisional association of American medical colleges, which would, in time, play a leading role in raising the standards of medical education.

2) A start had been made in providing facilities and personnel for basic medical research. The first university-based medical research laboratories had been founded: the laboratory of physiology under Henry P. Bowditch at Harvard (1871) and the laboratory of physiological chemistry under Russell H. Chittenden at Yale (1874).

3) Drinking water contaminated by human excreta had been implicated in the spread of at least two epidemic diseases, cholera and typhoid fever. The knowledge that certain diseases were potentially preventable gave impetus to the formation of state and municipal Boards of Health and to the appointment of public health officers. The American Public Health Association was founded in 1872 and in 1879 Congress established the National Board of Health.

4) Hospitals were beginning to assume a new role in the provision of health services and in the clinical instruction of medical students. Hospital architects were paying more attention to functional design and to the need to prevent the spread of intramural infections. That the hospital was no longer to be merely a haven for sick paupers was indicated by the inclusion in newer establishments of rooms for paying patients. Of greater importance for medical education was the establishment in the 1870s of the first two hospitals to operate under the control of university medical schools: The University of Pennsylvania Hospital (1874) and The University of Michigan Hospital (1877). At about the same time, Johns Hopkins provided in his will funds to found a hospital and medical school

and directed that these institutions work together for the advancement of medical education and medical science.

5) Laboratory methods had begun to play a more significant role in clinical diagnosis.

6) The principles and practices introduced by Lister were providing the basis for a great forward surge in the field of operative surgery.

7) Professional nurses with special education and training had begun to replace the uneducated, underpaid women who had previously cared for the sick.

8) The concept of the relationship between microorganisms and human disease was gaining credence. In 1876, Robert Koch was performing his classic experiments on the anthrax bacillus. Bancroft was demonstrating that filariae were the cause of elephantiasis. Manson was conducting experiments that would provide the first scientific indication that a mosquito may serve as the intermediate host in the transmission of disease. However, it was first thought that the mosquito discharged the microfilariae of elephantiasis into water and that people acquired the disease by drinking the water. It remained for Theobald Smith to demonstrate clearly the insect transmission of disease in his studies of cattle fever in the United States.

9) What was to become the science of genetics had its experimental origin in the 1860s in the work of an Austrian monk, Gregor Johann Mendel, who demonstrated how certain characteristics were inherited by peas planted in the monastery garden. In a related field, the basic details of the manner in which cells divide to reproduce themselves were first worked out by Walter Flemming in Germany in 1876.

10) In Washington, D.C., John Shaw Billings was organizing medical literature in a systematic fashion that would make it more accessible to research workers and clinicians, and state governments were beginning to show serious interest in medical licensure.

The practice of medicine during the nation's second century would be profoundly influenced not only by the advances in medical science and other intramedical developments, but also by a number of nonmedical discoveries and inventions in the latter part of the 19th century: the telephone, electric lighting, petroleum products, the internal combustion engine, and the typewriter. Medical practice would also be affected by the various procedures that had been introduced to protect or enhance the health of the individual: better water supply, better disposal of waste; refrigeration in the home and in the transportation of food; more abundant and better-quality milk in the cities; more abundant protein foods, derived chiefly from western cattle; and year-round availability of seasonal foods made possible by the canning industry.

Many developments taking place in the last quarter of the 19th century

had a significant, though sometimes indirect, effect upon medicine. The expansion of railroads, the improvement of highways, and the increased speed and volume of waterborne travel by river, canal, and ocean served to break down the relative isolation of many communities and thus to aggravate problems in the control of communicable diseases. The United States had to keep a sharp eye on diseases in foreign lands because of the unremitting flood of immigrants. An additional, but in this case beneficial, effect of improved transportation was the widening of the service area of rural physicians. The progress of organized labor, beginning with the national organization of the Noble Order of the Knights of Labor (1869) as a secret society and with the founding of the American Federation of Labor in 1881, was to have a considerable influence on the health field. Its successful efforts to eliminate children from the labor force, to shorten the hours of work for both men and women, and to eliminate hazards and improve conditions in factories, mines, and other working areas certainly had a beneficial effect upon the nation's health.

The growth of the cities with their congested slums presented problems in housing, sanitation, nutrition, water supply, and the disposal of sewage and other wastes. Some of these problems facing physicians, health officers, and city officials were recognized in the first century of this country, and these men developed means for dealing with a few of them. The technical advances that were so numerous in the 1870s began to bring practical results to the cities in the 1880s, while new and useful inventions continued to multiply.

THE IMPACT OF TUBERCULOSIS

Pulmonary tuberculosis—also known as consumption or phthisis—though less alarming than the diseases that came in spectacular epidemics, was unquestionably “the captain of the men of death” in the 19th century. During the first half of the century, in the cities of the United States that kept mortality records, the annual death rate from consumption was about 400 per 100,000 population; in New York City in 1812 it reached 1700 per 100,000. Though the incidence of consumption was high among all classes of people, it was highest in the urban slums, where poorly nourished people were crowded together under abominable hygienic conditions.

In 1830, in the Report of the Sanitary Commission of Massachusetts, Lemuel Shattuck wrote: “The dreadful disease (tuberculosis) is a constant visitor to all parts of our commonwealth, but creates little alarm because it is so constantly present whereas the occasional visit of cholera or other epidemic disease creates alarm and, therefore, precautionary measures are taken.”

Edward Delafield summarized the notions on tuberculosis therapy prevalent in America in the early 19th century in a thesis published in 1816: bloodletting, emetics, mercury, opiates, digitalis and Peruvian bark.¹ He pointed out that sea voyages and a mild climate were of benefit and postulated that the nausea of seasickness was the basis for the beneficial effect of sailing.^{2,3} He reiterated the views of Robinson and Reid that changes of climate are beneficial in tuberculosis; travel often means sea voyages, passengers on ships frequently become seasick, and therefore the induction of vomiting by use of emetics is beneficial in the treatment of tuberculosis. This cyclical reasoning led to the use of emetics not only in the treatment of tuberculosis but in other diseases as well. In 1834 Samuel Morton published the first American textbook on tuberculosis in which he devoted a major section to a discussion of climate.^{4,5} He concluded that "when it becomes advisable to combine a long journey with a change of air the invalid cannot do better than direct his course from our Atlantic cities to the western states across the Alleghenies and travel through Ohio and Kentucky."

The attitudes toward tuberculosis underwent a radical change when Robert Koch discovered the tubercle bacillus. William H. Welch, who was then pathologist at the New York University and Bellevue Hospital Medical College, learned about the discovery from Austin Flint, Sr., who, though 70 years old, relished with boyish enthusiasm every new development in medical science. Flint had shown more interest than most of his American colleagues in the germ theory of disease. On the morning of April 3, 1882, while Welch "lay in bed after a late evening in the dead house, the door of his room burst open and in came the old gentleman [Flint] at a run, waving a newspaper in the air. 'Welch,' he cried, 'I knew it, I knew it!' The young man must have blinked in sleepy surprise, but when Flint explained that a dispatch in the paper told of Koch's great triumph, he jumped out of bed as excited as his master."⁶

During the latter part of the 19th century, health spas had reached their peak in Europe and were attracting a great deal of attention in the United States. Although there were many areas in this country offering similar climatic and geographic features, they were relatively unknown at this time and as a result, many patients were sent to Europe for the cure.

After the discovery of the tubercle bacillus, it was hoped that a way would be found to kill the bacillus within the human body, or at least to make the body more resistant to its effects. In 1890 Koch thought he had discovered a cure for tuberculosis. He reported at the International Medical Congress in Berlin that he had made a substance that rendered normal guinea pigs resistant to tuberculosis, and when injected into guinea pigs with advanced tuberculosis, arrested the disease. Three

months later he reported that this work had been extended to human patients with very encouraging results. In neither of his first two reports on this subject did Koch describe the origin or preparation of the substance that he had used to treat the animals and the patients. Known at first as "Koch's lymph," it turned out to be tuberculin prepared by boiling, filtering, and concentrating a broth culture of tubercle bacilli. In spite of the cautious and preliminary nature of Koch's reports, tuberculosis patients from all countries flocked to Berlin for treatment. (The treatment was also tried extensively in this country.) Before many months had passed, it became apparent that the tuberculin treatment was not only ineffective, but also dangerous. There were severe, and sometimes fatal, reactions to the tuberculin. Although tuberculin proved to be worthless as a remedy, it came into wide use as a diagnostic agent. The true nature of the tuberculin reaction, however, was not understood until the first decade of the 20th century, when von Pirquet and Schick reported their work on hypersensitivity and allergy. In the second decade of the century, the whole subject of tuberculin sensitivity came under intensive investigation at Trudeau's Saranac laboratory.

INTEREST IN CLIMATOLOGY

The idea that climatic and geographic conditions influence human constitution and predispose to certain diseases goes back to Hippocrates. In the United States, public opinion on the relationship of climate and disease followed that of the physicians. William Curry's historical account of the climates and diseases of the United States, written in 1792, is a summary of the impressions he gained from talking to doctors in his travels around America. There is nothing new in his book and his opinions do not differ from those of Thomas Jefferson or Benjamin Rush. The idea that miasmas, originating in swamps, and noxious substances developed from putrefying vegetable and animal material were causes of disease was a basic tenet of public health at that time. It resulted in efforts to drain swamps and to clean up vegetable and animal remains during epidemics of the colonial period in the United States. Although the theory was then incorrect, these efforts did kill off the mosquito vector in some of the yellow fever and malaria epidemics of the time. Another practical and effective outcome of this theory of noxious substances was the development of the mountain resorts along the Appalachian chain of mountains to which the upper classes of the colonial cities retreated during the summer months, thereby avoiding the malaria and yellow fever of the tide water. At the same time, the therapeutic value of the "waters" came to be appreciated.

Explorations of the Rocky Mountains started with Pike in 1810, who developed the idea that the openness and the air were good for health.

In 1847 George Frederick Ruxton stated: "... the air of the mountains has a wonderfully restorative effect upon constitutions enfeebled by pulmonary disease. . . ."⁷

Two papers (in 1867 and 1869) by Hermann Weber⁸ (Fig. 1) drew widespread attention to the effect of altitude on tuberculosis.^{9,10} Weber quoted the articles of Archibald Smith on the Peruvian Andes that had appeared in the early 1840s, and referred to H.C. Lombard of Geneva and Brehmer of Gorbersdorf.¹¹⁻¹³ Weber called attention particularly to Switzerland and to the resorts at St. Moritz and Davos, which opened in 1865 and were the models of high-altitude tuberculosis resorts.¹⁴ Weber believed that the advantages of high altitude were due to dryness of the soil, diminished humidity of the air, and low temperature. He emphasized the "comparative freeness of the air from foreign admixture, especially of organic nature; and the greater number of clear days."¹⁵

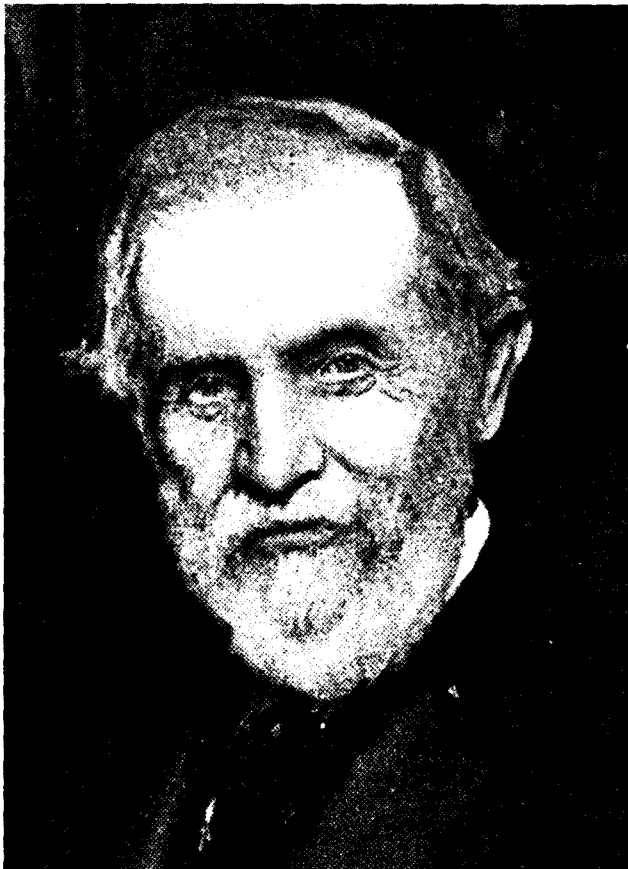


FIG. 1. Sir Hermann Weber

Following the gold strikes of the 1860s and the end of the Civil War, migration to Colorado increased greatly, and when the railroad reached Denver in 1870 the influx of patients with tuberculosis was quite large. It was estimated that by 1880 fully one-third of the population of the state (about 65,000) were consumptive. A Colorado Territorial Medical Society was formed, and at its meeting in 1874 Dr. Thomas E. Massey of Denver was appointed chairman of a Committee on Climatology. In his report a year later, Massey stated that "the peculiarities of a climate that apparently protract the days of a consumptive seem to be precisely those that prematurely age the generally healthy. . . ."¹⁶ The minutes recorded that "it was a characteristic paper and dealt with the climate and claims of Colorado in a trenchant and incisive style which was evidently the result of conviction." The President promptly renamed the committee, calling it the Special Committee on Topography, Climatology, and Epidemics, and he appointed Dr. Charles Denison as its chairman.¹⁷

Denison had arrived in Denver in 1873 as a victim of tuberculosis. Graduated from the University of Vermont in 1869, he had had pulmonary hemorrhages while practicing in Hartford. More than anyone else, Denison advertised the Colorado climate as a cure for tuberculosis. In 1876 he published two papers, the first of which was read at the American Medical Association (AMA) meeting in Philadelphia in June as part of the program on the Section on Public Hygiene and State Medicine. During the previous year the Section had invited papers on tuberculosis from Colorado, Minnesota, and Florida—and this very selection by geographic area shows the predominant interest in the disease's climatological aspects. Denison's paper was fairly short and properly restrained, as "befitted a man from a Territory."¹⁸ However, between June and September of 1876, Colorado became a state, and when Denison attended the Centennial International Medical Congress it was as a representative of the Colorado State Medical Society. There he read a paper on "The Influence of High Altitudes on the Progress of Phthisis" which occupied 34 printed pages with six tables, and voluminous notes.¹⁹ He concluded that: "Resort to a well-chosen elevated climate should constitute part of the physician's advice to every consumptive. . . ." The discussion was lengthy and typical of those that followed all papers presented in the next two decades on this subject. In 1880, Denison published his book on Rocky Mountain health resorts²⁰ and later there were several editions of his Pocket Atlas and various climatic maps.²¹

During the 50-year period beginning in 1871, Colorado physicians published about 4700 papers in professional journals. Of these, about 11% concerned tuberculosis and 30% of those were on the effects of altitude on the disease.²² The principal writers on altitude therapy were Charles Denison (1845–1909), Samuel A. Fisk (1856–1915), Charles Fox Gardiner (1857–1947), S.E. Solly (1845–1906), Henry Sewall (1855–1936)

and Gerald B. Webb (1871-1948). All of these men were at one time or another officers of the American Climatological Association. Although Denison and Solly typified the older breed of climatologist, that a new breed was appearing was evident from the work of such men as Henry Sewall and Gerald Webb.

By 1883 there was widespread interest among physicians in the treatment of tuberculosis. This group was also active in disseminating information about the health spas in this country and in studying the effects of climate on disease. These physicians decided to form a society for "the study of the climatology and diseases of the respiratory organs."

BIRTH OF THE AMERICAN CLIMATOLOGICAL ASSOCIATION

A small group of these men met in New York City on September 25, 1883 to organize the American Climatological Association. Charles Denison, having conceived "the idea," left it to his close friend J.H. Tyndale to arrange this organizational meeting. The following were selected as officers: President, Alfred L. Loomis of New York; Vice-Presidents, Frederick I. Knight of Boston and William H. Geddings of South Carolina; Secretary and Treasurer, J.B. Walker of Philadelphia. The date set for the first annual meeting, which was to be held in Washington, D.C., was May 3, 1884. Among the other founding members who attended that meeting in New York City in 1883 were William Pepper, Frederick Shattuck, J.H. Tyndale, J.R. Leaming, D.M. Cammann, Paul Kretschmer, John H. Musser, Roland Curtin, Beverley Robinson, J.C. Wilson, and E. Fletcher Ingals.

Chapter 2

THE FIRST ANNUAL MEETING: MAY 3, 1884

Washington, D.C. was alive with physicians during the first week of May, 1884. Registration for the May 6 convention of the American Medical Association exceeded 1200 members. Preliminary meetings of the committees and scientific sessions had begun the weekend before the convention's opening meeting, which was scheduled for Tuesday, May 6.

This lively scene overshadowed the opening session of the first annual meeting of the American Climatological Association, which took place on Saturday morning, May 3 in the Georgetown University Law Building on F Street near Sixth in northwest Washington.¹ Under the heading "The Weather Today," the *Washington Post* for May 3, 1884 carried the following predictions: "For the middle Atlantic states, slightly cooler, fair weather, northwesterly winds becoming variable, and higher barometer." For May 5, 1884 the predictions published by the same newspaper were as follows: "For the middle Atlantic states, cloudy weather with rains, winds, stationary temperature, lower barometer."

The foreseeable future for this new Climatological Association seemed about as dismal as the weather report if one reads the account that appeared in the *Journal of the American Medical Association* on Saturday, May 10, 1884:²

American Climatological Association—The members of this new organization assembled for their first annual meeting in the hall on the northwest corner, 6th and F Streets, Washington, on Saturday, May 3 at 10 o'clock a.m. Though not a member of the Association, we went to the hall at the proper time, expecting to hear some good papers and discussion on topics of the highest interest. In this we were disappointed, however, as only 14 of the 40 members enrolled upon the list had made their appearance, and there being no audience but myself and a friend who accompanied me, the members present decided to devote their time to the consideration of the report of a committee on constitution and by-laws, and such matters as related to the completion of their organization, and postpone the reading of the papers until Monday morning, when it was hoped that a larger number would be present. Among those present whom I recognized. . . were Dr. Charles Denison, of Denver; Dr. Frank Donaldson, of Baltimore; and Dr. A.Y.P. Garnett, of Washington. The first-named has a long and interesting paper on "Dryness and Elevation: The Most Important Elements in the Climatic Treatment of Phthisis" [on the program].

It is illustrated by maps and charts and is based largely upon his personal observations during many years of residence and practice in Colorado. The second is to read a paper on "The Climate of Large Cities Dangerous to Consumptives," a subject of scarcely less importance than the other, and yet one which has received less patient and accurate observation than it deserves.

The observations made under the direction of the standing committee of the American Medical Association on the meteorological conditions of the atmosphere and their relations to the prevalence of disease, have shown that in the most densely populated parts of our large cities, hardly a trace of ozone or other active oxidizing

agent is to be detected at any part of the year, while both free and albuminoid ammonia, resulting from the decomposition of organic matter, are seldom absent in some localities. How far these conditions may favor the more frequent development and more rapid progress of phthisis in large cities, can be determined only by observations so numerous and protracted, that real causes and efforts can be separated from mere coincidences. While looking at the limited number present in the meeting of the Climatological Association, I could not help thinking that all the objects of the organization could be just as well attained, at less expense, and with much better security for an audience, in connection with one of the Sections of the American Medical Association, than in a separate capacity. The special field the members proposed to cultivate, namely, the relations between pulmonary diseases and climatic influences, might be prosecuted with perfect propriety in the Section on the Practice of Medicine and Therapeutics, where a good audience is reasonably certain, and from which the papers would speedily pass into the *Journal of the Association*, and be widely distributed to the profession in all parts of the country, instead of being incorporated into a volume of *Transactions* to be read by very few outside of their own membership.

THE FIRST SESSION

Frederick Irving Knight (Fig. 2), a Boston laryngologist, opened the first session at 10 o'clock in the absence of President Loomis, who was ill in New York City. After his 1866 graduation from Harvard, Knight did postgraduate study under Austin Flint, Sr. in New York City and returned to Boston to enter private practice as the partner of Henry I. Bowditch and to teach auscultation, percussion, and laryngology at Harvard. Knight had been a founder of the American Association of Laryngology in 1878 and the first speaker on the program of its charter session with his paper, "Retropharyngeal Sarcoma." He organized the publication of the *Archives of Laryngology* and was president of the Laryngology Association four years before he chaired the first session of the American Climatological Association.³

The objective of the Association was declared to be the study of climate and diseases of the respiratory organs. Membership was not to exceed 100 active and 25 honorary members. Annual dues were to be \$5.00, payable on the first day of the constitutionally prescribed two-day annual meeting. Morning sessions would be devoted to organizational business, the election of officers and committee reports, with the afternoons reserved for the presentation and discussion of scientific papers.

The second and final day of the meeting was May 5. Monday's larger audience consisted of 17 physicians, to whom Knight delivered the opening address:⁴

Our professional brethren will probably look to the minutes of our first meeting as to the preface of a book, to see what reason we can give for our existence, for creating ourselves an independent organization. Our answer is that we believe that more can be accomplished by a small body of thoroughly interested men, working independently, in a limited field, rather than as a part of a great combination. . . .

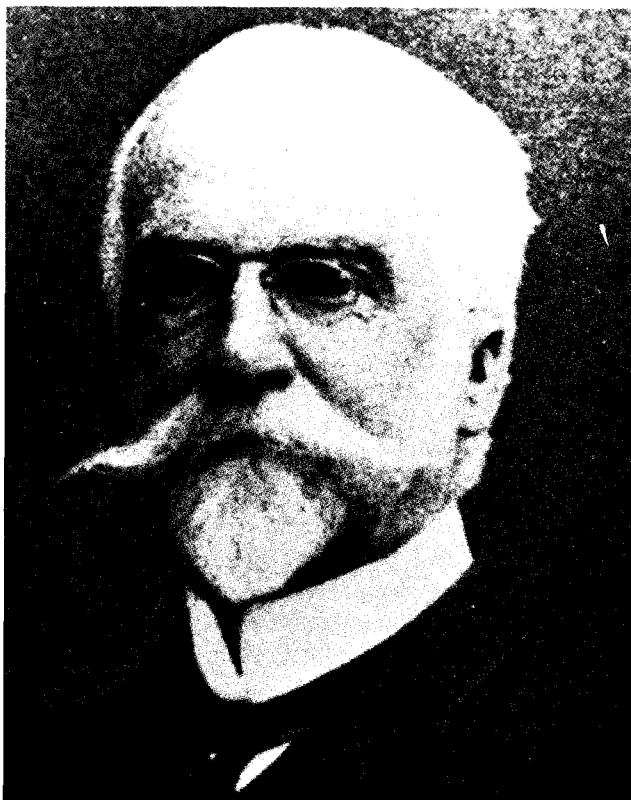


FIG. 2. Frederick Irving Knight

One of our first objects in attempting to revive and further a knowledge of climatology should be to place before the general profession, for everyday use, well-known and indispensable facts about climate. . . .

During the past 30 years the mind of the medical practitioner has been absorbed in the pleasure and satisfaction of exact diagnosis, to the detriment of the art of therapeutics, except when exact diagnosis indicated a pretty certain remedy. . . . In this decline of the study of therapeutics the knowledge of climate has suffered, and the extent of the advice which most practitioners offer today is "Try a change," or "Go South". . . . In extending our knowledge of this subject, our own members will occupy a vast field with almost every variety of climate, which has been as yet but little explored.

Concluding his desultory remarks on climate and on the organizational structure of the new Association, Knight introduced the first speaker.

Frank Benjamin Westbrook,⁵ a 33-year-old practitioner from Brooklyn, presented the first paper, "Etiology of Pulmonary Phthisis." A graduate of the Long Island College Hospital in 1874, he was pathologist to St. Mary's Hospital, of Brooklyn, lectured on anatomy and pathology

at Long Island College Hospital, and was physician-in-chief, department of chest diseases at Sheltering Arms Hospital in Brooklyn. Westbrook stated that the pathology of phthisis included many important factors other than the tubercle bacillus. There was an absence of bronchial mucus glands and the presence of obstacles to the expulsion of dry substances from alveoli, which favored the establishment of caseous foci. Other abnormalities in the pathogenesis of tuberculosis were "a low vitality, a scrofulous diathesis, haemoptysical appearance, exanthematous fevers, defective nutrition, emigration from Ireland, and long confinement indoors." Avoidance of overwork indoors, of continual drinking of alcoholic stimulants, of overeating, of a life of languor, and changing one's habitude from the rural to the urban were of paramount importance in escaping tuberculosis, in his view. Westbrook's condemnation of alcoholic beverages was contrary to the clinical dictum of the time regarding the use of distilled spirits. Austin Flint, Sr., a prestigious charter member of the Climatological, prescribed one ounce of whiskey every hour for phthisis as a supportive remedy. This may or may not have relieved dyspnea, but it certainly improved the atmosphere of patient management. According to Westbrook, it was necessary to understand the peculiarities of lung structure that favored the location of tuberculosis in the apices of the lungs. Sudden and violent expiratory efforts of coughing compressed the lower and middle portions of the lung, forcing the air upward with such power and in such volume that it could not find an immediate exit; as a result, air from the upper lungs was driven into the upper lobe alveoli, forcing morbid products back into the dry air sacs and favoring their retention, and later caseation. While fluids gravitated from the apex toward the base, dry residues and collections of cells were retained there with special tenacity.

Boardman Reed,⁶ a 42-year-old physician who was decorated as a captain of Company I, 50th Wisconsin Volunteer Infantry during the Civil War, was the second speaker. Reed had attended Beloit College and had been energetically developing the Seaside House for Invalid Women along a barren stretch of beach called Atlantic City since his graduation from the University of Pennsylvania Medical Department in 1878. As president of the Atlantic City Board of Health, he spoke with authority on the "Effects of Sea Air Upon Diseases of the Respiratory Tract." He reminded his colleagues that the benefits of ocean air for consumption had been so generally accepted since the time of Hippocrates that there should no longer be doubt about it. "Sea air," he said, "has more ozone and density, enabling the lungs to take in more oxygen with each respiration, whereas high altitude causes vertigo, rapid pulse, appetite loss, severe dyspnea, and hemorrhages from the eyeballs and under the nails. Sea air, on the other hand, is impregnated with saline particles

which bathe the mucus membranes of the respiratory tract in an alkaline spray; it increases the appetite, has a tonic effect, and is freed from all noxious effluvia and bacteria which cause so many dread diseases." In his view, chronic laryngitis, vesicular emphysema, and consumption before softening are palliated by residence at seaside resorts. Hayfever, generally regarded then as a neurosis, does not repond to ocean air.

Franke Huntington Bosworth's⁷ title, "The Relation of the Laryngeal to Pulmonary Disease," was selected at the planning meeting as a topic without the speaker's consent. Bosworth opened the third paper of the morning by stating that there is no practical connection between diseases of the larynx and the lungs. Chronic laryngitis, in his view, was really a symptom rather than a disease, and was designated as an inflammation of the mucus lining of the larynx caused by habitual mouth breathing of dry, cold or impure air, resulting in nasal stenosis. He could not recall having seen a single case of chronic laryngitis in the previous three years that had not been cured. During this period, Bosworth had abandoned all topical treatments such as vegetable and mineral astringents, sprays, brushes, sponges, and probangs. Application of silver nitrate solution was only a last resort. "I once saw a patient, a physician, in whose larynx silver nitrate had been used, and his condemnation of it was most emphatic," said Bosworth. He declared that postmortem examinations revealed that 30 percent of patients with phthisis pulmonalis have tuberculosis of the larynx, but no single case of laryngeal tuberculosis was without lung involvement. In his view, there could be no question that the disease may occur primarily in the larynx and later develop in the lungs. Thus, larynx disease is a most active and exciting cause of pulmonary phthisis. In closing, Bosworth declared that since the most frequent cause of laryngeal phthisis is pulmonary phthisis, and since of the large number of larynges subjected to cough and purulent discharge arising from the lungs, only a small percentage develop tuberculosis, physicians are bound to conclude that these bad influences have been overestimated. An 1869 graduate of the Bellevue Hospital School, the 41-year-old Bosworth was well qualified to discuss diseases of the larynx. With Jacob Da Silva Solis-Cohen, and Sir Morrell Mackenzie, he was acknowledged to be one of the triumvirate of founders of the specialty of laryngology. One of the organizers of the New York Laryngology Society in 1873, he was also a founder of the American Laryngology Association and served as its president in 1883. He was professor of diseases of the upper airway tract at Bellevue when he gave his paper at this first meeting. His *Handbook Upon Diseases of the Throat and Nose* (1879) and a more comprehensive 427-page *Manual of the Throat and Nose* (1881) were then standard medical texts.

Bosworth's paper concluded the morning session and Alexander Yel-

verton Peyton Garnett⁸ acted as host to the members during the luncheon interlude. Garnett graduated from the University of Pennsylvania in 1842, served as assistant surgeon in the U.S. Navy for seven years, and practiced medicine in Washington, D.C. until the outbreak of the Civil War polarized his allegiance to his native state of Virginia. He became family physician to President Jefferson Davis, General Robert E. Lee, and a majority of the Confederate Cabinet and Senate. After the war, he returned to Washington, D.C. to resume practice. He became president of the Medical Society of the District of Columbia and in 1884 was ambitiously eyeing the presidency of the American Medical Association.

One of the most experienced climatologists at this first annual meeting was another Southerner, William H. Geddings,⁹ second vice-president of the Association. Age 46, Geddings had studied at the Medical College of South Carolina, journeyed abroad to study dermatology at the Imperial Hospital in Vienna, and returned to the United States in time to enter the service of the Confederacy. On April 9, 1865, the day of Lee's surrender, Geddings was paroled from his prestigious position as surgeon and purveyor of the Army of Northern Virginia. He made another trip to Europe for study and then entered the practice of dermatology in New York City in 1868, only to be uprooted once again when his wife's health required a change of climate one year later. He resumed his practice in South Carolina where "the terebinthinate exhalations from the pine forests around Aiken and Thomasville are extremely grateful to the pulmonary invalids" who had been generously referred to him by various physicians, including Alfred L. Loomis and Francis Donaldson, for over 15 years.

Charles Denison,¹⁰ a 39-year-old professor of diseases of the chest and climate in the medical department of the University of Denver, was the first speaker on the afternoon program (Fig. 3). An 1872 graduate of the medical department of the University of Vermont, he had opened an office in Hartford, Connecticut with the intention of specializing in ophthalmology. A lung hemorrhage during the Christmas holiday of 1874 led to his decision to migrate West to a small town called Denver on the eastern side of the Rocky Mountains in search of a cure. The Rocky Mountain air arrested his symptoms and he resumed the practice of medicine, devoting himself to extolling the benefits of high altitude. In 1874, he had corresponded with some 200 physicians and business leaders in an unsuccessful attempt to organize a National Climate Association. His 1878 publication of "Rocky Mountain Health Resorts," a meticulous collection of climatic data for health seekers, brought him patient referrals from all over the United States. His presentation at the first meeting, entitled "Dryness and Elevation, the Most Important Elements in the Climatic Treatment of Phthisis," enumerated the benefits of high, dry



FIG. 3. Charles Denison

climates in some 10,000 words with six tables and four color maps; his paper was based upon 36,000 separate U.S. Signal Service statistics. Climates of the United States, according to Denison, could be listed in four categories. There were those characterized by excessive dryness and moderate dryness, which gave variability, and moderate moisture and excessive moisture, which gave equability. The dry climates, in his view, had direct effects upon pulmonary transpiration (the expiration of water vapor), whereas high altitudes stimulated circulation and respiration, in addition to placing the patient with phthisis in closer proximity to radiation, whose powers remained untapped by medicine. The dryness of climate was, in his words, affected by its temperature, altitude, latitude, seasons, distance from ocean or rivers, mountain ranges, absorbing power of its soil, radiation, diathermy, sunshine, absolute humidity, relative humidity and variability, all factors that Denison explained in all-too-painful detail. The importance of climate, according to him, was in selecting the right climate to meet the patient's medical needs. He felt that the dry, high altitudes provided those features most beneficial to the

patient with tuberculosis. Having encountered nothing but lack of interest when he presented these data to the AMA section on the practice of medicine, he stated that it was a great pleasure to be associated with physicians who were dedicated to the study of climate.

Assuming this pleasure to be mutual after his two-hour presentation, Denison turned the rostrum over to Francis Donaldson.¹¹ After receiving his M.D. from the University of Maryland in 1846, Donaldson studied in Paris for two years and returned to Baltimore as resident physician to the Marine Hospital. He published extensively on the diagnosis of diseases of the throat and chest and contributed a section on "Diseases of the Pleura" for William Pepper's *System of Medicine*. In 1882 he served as president of the Medical and Chirurgical Faculty of Maryland. His paper was entitled "City Air and City Life: Injurious to Consumptives." It was Donaldson's conclusion that the products of any inflammatory disease of the lung may by degeneration turn into consumption. "Whatever lowers the nutrition of the body," lack of hygienic surroundings and hereditary tendencies also influence onset of the disease. By controlling environment, in his view, these influences could also be directly controlled. He believed furthermore that contributing to consumption were the tempting excesses of immorality, alcoholism, impure air, deficient sunlight, the indoor life, late dinner hours, an excess of mental work, and other depressing influences. Particularly bad features of city life were exposure to diseases such as smallpox, measles, typhoid fever, Bright's disease, and diabetes, to say nothing of contagion from tuberculous patients. Donaldson concluded that it was a very real possibility that the tubercle bacilli ejected from diseased lungs were more dangerous in urban centers, with their overcrowded houses and hospitals.

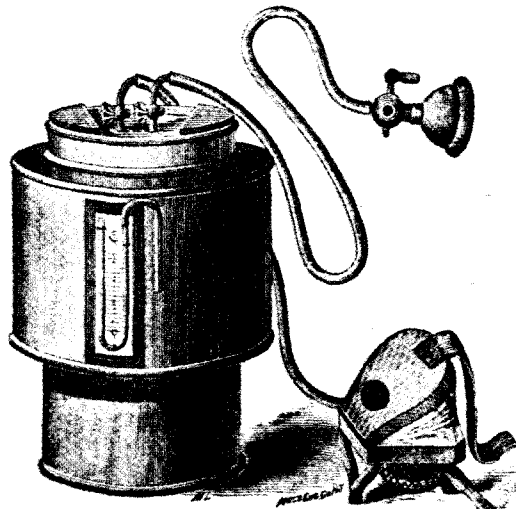
The next speaker, a 46-year-old professor of diseases of the throat and chest at the Jefferson Medical College of Philadelphia, ended the scientific program with a 1700-word description of "The Use of Compressed and Rarefied Air as a Substitute for Change of Climate in the Treatment of Pulmonary Disease." Dr. Jacob Da Silva Solis-Cohen¹² graduated from the University of Pennsylvania in 1860, saw combat as a lieutenant in the 26th regiment of the Pennsylvania Volunteers at the defense of Washington, and resigned his army commission to ship out as assistant surgeon, U.S.N., with DuPont's expedition to Port Royal. Having satisfied his taste for adventure, he settled down to practice medicine in 1866 in Philadelphia, where he performed the first successful operation for laryngeal cancer after a year's study of esoteric throat diseases. Publication of his "Inhalation in the Treatment of Disease: Its Therapeutics and Practice (A Treatise of the Inhalation of Gases, Vapors, Fumes, Compressed and Rarefied Air, Nebulized Fluids and Powders)" in 1867 brought him international fame. It was the belief of Solis-Cohen that the inhalation of compressed air dilates the lungs and thorax to a greater

extent than can be accomplished by the deepest possible inspiration. Expiration of compressed air dilates the air cells and rectifies a collapsed lung by backward pressure. Inspiration of rarefied air diminishes the pressure of the air in the lungs by diffusion with expiration into rarefied air, exhausting a portion of the residual air in the lungs, thus favoring collapse of the distended air cells. He emphasized that inhalation therapy is indicated in early phthisis, chronic bronchitis, partial collapse of the lung following pneumonia, and in all cases where the vital capacity of the lungs is reduced.

The Cohen-Richardson compressed air apparatus possessed an inner cylinder or air chamber weighted at the bottom and having a diameter accurately adjusted to that of the outer cylinder or water chamber. A foot bellows pumped air into the air chamber (Fig. 4). The apparatus, which he used in his own office, could be manufactured for \$20.00. Hemorrhage was the only contraindication, but the principal disadvantage of this therapy was the physician's time required for its administration. In his view, if patients could be grouped together so as to inhale simultaneously from a number of such machines, inhalation therapy might conceivably become sufficiently remunerative to attract physician supervision.

RE-ELECTION OF PRESIDENT LOOMIS

Alfred L. Loomis,¹³ having missed the first meeting due to illness, was re-elected (in absentia) to a second term as president (Fig. 5). Loomis, a



SOLIS-COHEN'S COMPRESSED AIR APPARATUS

FIG. 4. The compressed air apparatus of Jacob Da Silva Solis-Cohen

being the pioneer in this noble work in this country. This unpretentious establishment, located within one and one-half miles of Saranac Lake Village, had opened in the summer of 1883. It represented an attempt to give patients of moderate means who were suffering from pulmonary disease the benefit of this outstanding climate. It was not intended as an asylum for hopeless cases, but as a means of restoring to health those in the early stages of pulmonary phthisis.

Loomis went on to discuss the uncertainty that existed in the minds of the profession in regard to the etiology and morbid anatomy of phthisis. He pointed out that only recently certain investigators had postulated a specific material that may or may not be accompanied by the histological elements of tubercle, but that always contained a specific form of bacillus, which they felt was the sole exciting cause of the disease's development. He vividly described Koch's belief that the repeated entrance into healthy lungs of small numbers of this specific bacillus of tuberculosis would cause chronic phthisis, and that the simultaneous admission of numerous bacilli would produce acute phthisis (although he emphasized that these beliefs were as yet unproved). In his view, the majority of careful observers were united in the belief that the most important part of the management of the patient was a suitable climate, which acted therapeutically in arresting early phthisical processes in two ways—first, by its invigorating effects generally and its power of improving defective nutrition, and second, by its local effects in preventing disease processes in the lungs and in arresting such processes after they had developed. Loomis believed that there was a climatic condition as essential as altitude to purity of the atmosphere in any locality—porosity of soil. In localities where the soil drained slowly and imperfectly, there was a peculiar dampness, which acted powerfully in developing phthisis. He recalled that Dr. Henry I. Bowditch^{1,2} had stated that soil moisture was one of the chief causes of phthisis and that localities with a dry soil were comparatively free from the disease. Loomis also noted that the presence of extensive evergreen forests had been found to have a powerful purifying effect upon the surrounding air, and mentioned observations showing that ozone, or the electrical condition of the atmosphere in which it was present, acted as a powerful purifying agent in the atmosphere—an oxidizing disinfectant. In addition to preventing the entrance of microbes into the lungs through the respired air and maintaining the pulmonary tissues in healthy condition to prevent abnormal changes in the lungs, physicians should try to destroy the bacilli in diseased lungs, principally by means of antiseptic inhalations. (He noted, however, that there was still doubt whether the means of inhalation then in use were capable of passing antiseptic materials to the pulmonary tissue. Perhaps the ingeniously contrived pneumatic cabinet of Dr. H.F. Williams of Brooklyn could accomplish such desired results.)

In the first paper given at the conference, Dr. Beverley Robinson discussed antiseptic inhalations in tuberculosis and found that the most generally useful of them in the early stages of pulmonary phthisis was creosote and alcohol in equal parts. William C. Jarvis³ talked about catarrhal affections of the nasal passages as a cause of pulmonary phthisis, with special reference to the role of heredity. Dr. Williams then presented a paper describing his technique of pneumatic differentiation. Charles Denison gave a long and detailed paper on the annual and seasonal climatic maps of the United States, with a rule for the even division of climate, based upon the average of the combined atmospheric humidities in the United States. Denison added nine more pages to his lengthy paper delivered at the first meeting.⁴ The President felt constrained to say that it seemed to him that Denison had endeavored to put too much on his maps, and they were confusing, to say the least. Dr. A.N. Bell thought they proved the opposite of what Denison wished to prove, and Dr. Boardman Reed of Atlantic City was glad to hear Bell's vigorous protest.

In the early programs, there were frequent descriptions of the origin and geographical distribution of tuberculosis in various states and remarks about the climate in various regions of the country. E.L. Shurly described the incidence of phthisis in the state of Michigan and Dr. J.C. Wilson of Philadelphia presented remarks on the climate of Florida, as did Dr. J.M. Keating. Dr. D.M. Cammann gave a long historical dissertation on the development of the stethoscope and F.H. Bosworth of New York lectured on hay fever, asthma, and allied afflictions.

THE THIRD ANNUAL MEETING

The third annual meeting of the Association was held in New York City on May 11, 1886 with Dr. William Pepper⁵ in the chair. Born in Philadelphia, August 21, 1843, he received his M.D. from Pennsylvania in 1864. Among his greatest accomplishments were the establishment of the Hospital of the University of Pennsylvania, a reorganization of the medical curriculum of the University, and the founding of a great commercial museum and free library. He became provost in 1881. The Pepper Clinical Laboratory dedicated to his father was another of his sterling contributions. "I prefer the life of the salmon to that of the turtle" he once told Osler, but an arduous life of 30 years began to tell and he died in 1898 of heart disease.

A communication was received from the American Surgical Association through Dr. J. Ewing Mears, inviting the Climatological Association to join with a number of other special societies in forming a Congress to be styled "The Congress of American Physicians and Surgeons." Dr. Bosworth moved that the Committee of Arrangements of the next meeting



FIG. 5. Alfred L. Loomis

consumptive himself, had been practicing chest medicine in New York City since his graduation in 1852 from the College of Physicians and Surgeons. For 16 years, he had been professor of both pathology and the practice of medicine in the University of the City of New York. His principal work, *Lessons in Physical Diagnosis*, appeared in 1872, followed three years later by a volume on *Diseases of the Respiratory Organs, Heart and Kidneys*. He was publishing his 1,102-page *Textbook of Practical Medicine* during the same year as the Climatological chartering. One of his patients, another physician named Edward L. Trudeau, followed Loomis's advice to seek the cure in a small Adirondack village; in the mid-1870's, Trudeau was caring for two patients referred to him by Loomis.

THE FIRST SECRETARY

In his opening address, Knight had said that there was no use in trying to manage the routine business of the Association by means of a com-

mittee composed of men who lived at great distances from one another. "The one-man power is what is wanted" to make preliminary announcements, secure papers and the attendance of members, arrange good programs, and make every meeting a success (Appendix A). Elected to perform this Herculean task was a 38-year-old Philadelphian named James Baynes Walker (Fig. 6). He planned to accomplish the charges of his new office while also serving as professor of practice at the Women's Medical College of Pennsylvania, and president of both the Medical Society of Northern Philadelphia and the Pennsylvania State Board of Medical Examiners, and making rounds on his patients at the Philadelphia General Hospital.

MEMBERS OF THE COUNCIL

Council members elected for the Association's first year included Beverley Robinson, Francis Donaldson, E. Darwin Hudson, E.T. Bruen, and J.H. Tyndale.



FIG. 6. James Baynes Walker

Robinson,¹⁴ a laryngologist, graduated from the University of Paris in 1872, did graduate work in laryngology at the London Throat Hospital under Sir Morrell Mackenzie, and was one of the original staff members of the Metropolitan Throat Hospital in New York City. His practical treatise on nasal catarrh, published in 1880, was being readied for a second edition in 1885.

E. Darwin Hudson¹⁵ graduated from the College of Physicians and Surgeons in 1867. He was professor of diseases of the chest at the New York Polyclinic and a consultant on the staffs of St. Elizabeth's and Bellevue Hospitals.

After his graduation in 1873 from the University of Pennsylvania, E. T. Bruen¹⁶ joined the attending staff at Philadelphia Hospital and began lecturing on clinical medicine at the University of Pennsylvania. His "Pocketbook of Physical Diagnosis of Diseases of the Heart and Lungs for Students and Physicians" was published a year before the charter session. He was writing a book on "practical lessons in nursing" to be published in 1887 and was working with his friend and colleague Solis-Cohen on a treatise on affections of the upper respiratory passages. Bruen had been promoted to an assistant professorship of physical diagnosis at the University of Pennsylvania a few months before the Climatological meeting.

John Hildegarde Tyndale¹⁷ graduated from Washington University in St. Louis in 1868 and entered the German army as a contract physician during the Franco-Prussian War. He settled in New York City in 1873 and had a large private practice mainly concerned with tuberculosis patients. Inspired by his close friend Charles Denison, Tyndale was the one who arranged the organizational meeting that had been held in New York City on September 25, 1883. Tyndale decided to migrate West in 1892, settling in Lincoln, Nebraska, where he specialized in the treatment of tuberculosis until retiring from medical practice in 1915. He had a wide acquaintance in theatrical circles and numbered among his personal friends Sarah Bernhardt, Richard Mansfield, Julia Marlow, and Forbes Robertson. As an avocation, Tyndale worked as a dramatics critic for the *Lincoln State Journal* and influenced and encouraged the career of another journal staff member—Willa Cather. He was the last surviving founder of the Climatological, dying on June 7, 1929.

Other distinguished individuals also participated in the charter session. Ephraim Fletcher Ingals,¹⁸ a laryngologist from Chicago and a graduate of the Rush College in 1871—where he became professor of laryngology—had also attended the founding meeting of the American Laryngology Association. Ingals held the chair of Diseases of the Throat and Chest in Northwestern University Medical School for Women at the time of the Climatological meeting. Ingals was promoted to a Professorship of Rhin-

ology and Laryngology in the Chicago Polyclinic and lectured in medicine at the University of Chicago from 1901 until his death on April 30, 1918. He developed a surgical procedure for deflection of the nasal septum that carried his name. Another charter member, Austin Flint, Sr.¹⁹ (Fig. 7), was closeted during the first Climatological meeting in a Washington hotel room, busily writing his Presidential Address for the opening meeting of the AMA convention. Flint's membership, if not his actual presence at the first meeting, added greatly to the stature of the embryonic Climatological. For 20 years following his 1833 graduation from Harvard, he had practiced in Buffalo, where he founded the *Buffalo Medical Journal* and the Buffalo Medical College. During his career he had held the chair of the Institutes and Practice of Medicine at Rush Medical College, Bellevue Medical College, and the Long Island College Hospital and had been a professor of medicine at Buffalo Medical College, the University of Louisville, and the New Orleans School of Medicine. He was a prominent individual in those days of the peripatetic professor. He had been teaching and practicing medicine in New York City for a



FIG. 7. Austin Flint, Sr.

quarter of a century when the Climatological was organized. Flint was a prolific contributor to the medical literature and published his *Variations of Pitch in Percussion and Respiratory Sounds* in 1852 and *A Compendium of Percussion and Auscultation* in 1865, and his *Treatise on the Principles and Practice of Medicine* (1866) was being revised for its 7th edition during 1884.

In reviewing the published records of the Association, certain discrepancies may be found in the lists of physicians who actually chartered the Climatological. According to the *Washington Evening Star* for May 5, 1884, H.Y.N. Miller (Atlanta), F.C. Shattuck (Boston), E.W. Schaumer (Kansas City), and H.D. Didama (Syracuse) were in attendance at the May 5 meeting. Didama supposedly presented a paper on "Diagnosis of Pulmonary Diseases" which was either erroneously reported by the press or was such an embarrassment to the Association that it was not included in the 1884 *Transactions*. These four physicians are not listed in the 1969 *Transactions* as having been elected to membership, although they were among the 42 physicians in the 1884 roster. Shattuck was on the 1885 nominating committee, according to that year's *Transactions*. Solis-Cohen was in Washington for the May 5 meeting but was not listed in the press accounts of the session, nor was he listed as ever having been elected to membership, although he was also among the original roster of 42.

Beverley Robinson, who was a charter member of the climatological, was also a charter member of the Association of American Physicians, which came into being in 1885. Another charter member, Alexander Y.P. Garnett, realized his ambition to be president of the AMA in 1887.

Chapter 3

THE EARLY YEARS

THE SECOND ANNUAL MEETING

The second annual meeting took place in New York City on May 27, 1885. President A.L. Loomis called the meeting to order at 3 p.m. John T. Nagle, M.D. of New York presented the Association with the report of Daniel Draper, Ph.D., director of the New York Meteorological Observatory from 1881 to early 1885, accompanying which were tables showing the daily mortality from pneumonia for the corresponding periods. Pneumonia was a common disease in New York City and attracted a great deal of attention because of its high mortality rate.

Loomis had the opportunity to make up for his absence from the first meeting, when illness prevented him from occupying the rostrum as president. In a well-received address, he indicated that the Association was organized so that medical men from different sections of the country might use their different views and experiences to try to determine the therapeutic value of the various localities alleged to have the power of arresting or curing chronic diseases of the respiratory organs. He emphasized that one needed only to read the history of almost any chronic disease, from the pens of recent European writers, to realize what a major part of their treatment consisted of advice to spend a variable period in this or that health resort or to take the waters at one of the well-known mineral springs. He stressed that neither in climate nor in mineral waters was Europe superior to America, only in its more thorough system of employing these methods of therapy. As an example of what was available in this country, he gave a brief description of the Adirondack Cottage Sanitarium* organized by Dr. E.L. Trudeau, who deserved the credit for

* The terms *sanitarium* and *sanatorium* have been preserved when each is part of a proper name: hence, Trudeau's "Adirondack Cottage Sanitarium," but the "American Sanatorium Association." Although the *Oxford English Dictionary* states that the words are synonyms (nevertheless identifying *sanitarium* as "quasi-Latin" and its use as "chiefly confined to the U.S."), René Dubos has offered a more substantive look at the two terms: "It is no accident, I believe, that the pioneers who popularized the rest cure used the word *sanitarium* instead of *sanatorium* to designate the special institutions devoted to the treatment of tuberculosis. *Sanitarium* comes from the root *sanitas*, and implies the type of healthy living in a salubrious and pleasant environment that would have pleased the goddess Hygieia. It remained the word of choice as long as faith in the healing power of nature prevailed. *Sanatorium*, from *sanare* (to treat), replaced *sanitarium* when active forms of treatment such as collapse therapy, surgery, and chemotherapy, became the vogue. The present trend to the expression "tuberculosis hospital" symbolizes the fact that once more Aesculapius has gained the upper hand over Hygieia." (Dubos RJ: *The philosopher's search for health*. Trans Assoc Am Phys 1953; **66**: 36.)

be directed to provide for a dinner, which would take place on the evening of the last day of the meeting. *The New York Medical Journal* was given the rights to publish all papers read before the Association, subject to conditions for publication of a volume of *Transactions* as was made for last year. Among the members from Philadelphia, William Osler was listed (with his address as 131 S. 15th Street.)⁶

Dr. Pepper's presidential presentation, a very scholarly dissertation, was entitled "A Contribution to the Climatological Study of Consumption in Pennsylvania."

The first paper was delivered by A.L. Loomis on the effects of high altitudes on cardiac disease. He related a series of cases in which ventricular dilatation was the cause of sudden development of severe dyspnea, which was in turn the start of a fatal illness due to the effects on the circulation of the change from low to high altitude. The second paper was presented by Henry Newell Martin, professor of biology at The Johns Hopkins University, and Frank Donaldson, Jr., one of his students, who gave a preliminary account of experiments relating to the circulatory and respiratory changes observed in animals placed in the pneumatic cabinet. In view of the great and sudden fall in arterial pressure when the animal was breathing outside air and the air within was rarefied, they concluded that the air in the cabinet should never be suddenly rarefied and that the sudden fall depended upon an increased blood flow to the skin and an accumulation of blood in the distended veins. They believed that before accepting an individual for treatment by pneumatic differentiation, the physician should perform a very thorough examination of cardiac function. It was also their belief that older persons with possibly atheromatous arteries were not proper subjects for treatment in the pneumatic chamber.

Several other papers at this session related to the use of the pneumatic chamber. Herbert F. Williams and Vincent Y. Bowditch discussed their experience with the use of pneumatic differentiation in the treatment of pulmonary tuberculosis. Isaac Hull Platt described the physics and physiological action of pneumatic differentiation.⁷

Dr. William Geddings discussed Aiken and Thomasville as types of inland health resorts of South Carolina and Georgia. Other papers were those of H.D. Didama on "The Health Resorts of Mexico"; E.T. Bruen's on "The Southern Adirondacks"; E.W. Schaffler's on "The Climate of El Paso, Texas"; and A.N. Bell's on "Southern Pines Park; A New Winter Health Resort." William Matthews discussed "Consumption Among the Indians," and R.G. Curtin, "Rocky Mountain Fever."

THE FOURTH ANNUAL MEETING

The fourth annual meeting of the American Climatological Association was held on May 31 and June 1, 1887, in the new physics laboratory of

The Johns Hopkins University in Baltimore with Frank Donaldson, Sr.⁸ (Fig. 8), of that city, as President. It was, from many points of view, one of the most memorable meetings of the Association. At the close of the afternoon session on Wednesday, the members visited The Johns Hopkins Hospital under the guidance of its architect—John Shaw Billings. The hospital was not to open until two years later, in May 1889.

In his Presidential Address, Donaldson pointed out that the most important contributions of the Association had been in relation to the effects of various climates upon respiratory diseases, especially pulmonary phthisis, which included among its victims fully one-third of those who died in active middle life. In most of the large cities in this country, the death rate from the disease had been from 14 to 15 percent, and in some it was as high as 17 percent. He pointed out the encouraging statistics from England and from the state of Massachusetts indicating a tendency toward decline in the death rate and the postmortem findings of many instances of halted tuberculosis. Donaldson gave an excellent review of the history of the development of our knowledge concerning



FIG. 8. Francis Donaldson, Sr.

the pathogenesis of tuberculosis, including the unity theory of Laennec and the experiments of Villemin who, in 1865, demonstrated that caseous matter introduced by inoculation into a healthy animal produced tuberculosis. The final proof of pathogenesis arrived with Koch's discovery of the tubercle bacillus, only two years before the founding of the Association.

Even at the time of Donaldson's address, however, the question still remained: could tuberculous disease be produced by the inoculation of anything but matter containing tubercle bacilli? Another question still unanswered was whether tubercle bacilli could settle and grow in healthy living tissue as opposed to pathologically altered tissue. It was evident that the bacillus found a better milieu in tissues weakened by disease, yet there was abundant evidence that as healthy animals, when inoculated, succumbed to the disease so healthy subjects rapidly yielded to the bacillus's onslaught. An example of this process was the occurrence of the acute miliary form of tuberculosis in apparently perfectly healthy persons. It was just becoming clear that tubercle bacilli were not present in the sputa of patients with other forms of pulmonary disease, and a variety of observations were indicating that the bacilli were rarely present in the lungs when absent from the sputum. The work of Koch had made sputum examination a necessity for physicians suspecting the disease. But the contagious nature of pulmonary tuberculosis was still incompletely understood, although there were many reports of individuals, especially wives and husbands, apparently contracting the disease from each other. Furthermore, as many individuals who were exposed did not develop the disease, it was difficult to establish the facts.

Donaldson concluded from all the information he could gather that there was, indeed, an inherited predisposition to the development of tuberculosis. His final conclusions were: 1) The presence of the parasite, the tubercle bacillus, was necessary for production of the disease; 2) There was a prominent element of susceptibility on a hereditary basis in about 30 percent of the cases; and 3) Poor hygiene and debilitating agents such as foul air, sedentary occupations, violations of the laws of health, other diseases, and prominently the soil-mixture, had a major effect on the development of tuberculosis.

One of the most interesting papers at this session presented experimental evidence supporting some of Donaldson's statements: a discussion of Edward Livingston Trudeau's studies entitled "Environment and its Relation to the Progress of Bacterial Invasion in Tuberculosis." In his experiments, three groups of five rabbits each were subjected to the following conditions: 1) Five were inoculated with tubercle bacilli, then confined in a small box and put in a dark cellar. In addition to being deprived of light, fresh air, and exercise, they were also given less than

the optimum quantity of food. 2) Five healthy rabbits were placed in a hole about ten feet deep, dug in the middle of a field, the animals being confined in a small box depriving them of light, fresh air, and exercise. They were furnished with a scanty supply of food while breathing in a chill and damp atmosphere. Although free from disease themselves, they were removed as far as possible from any accidental source of infection. 3) Five rabbits, having been inoculated in precisely the same manner as the animals in the first experiment, were at once turned loose on a small island with the best possible environmental conditions to stimulate their vitality. They lived constantly in sunshine and fresh air and soon acquired the habit of constant motion so common in wild animals. Four of the inoculated rabbits in group 1 died within three months and in all of them the injected lung was extensively diseased. In group 2, the five uninoculated and healthy rabbits placed in the damp pit were all living at the end of four months. In group 3, one of the five rabbits allowed to run at large died just one month after inoculation with tuberculosis. The four other rabbits remained in good health. Trudeau concluded that although one must not underestimate the pathogenic properties of the bacillus and its basic relationship to the production of the disease, the effect of extremes of environment on the resistance of the cells of the body to the infection was an element in this complex problem that should not be ignored.

Trudeau's paper was read by Dr. Alfred L. Loomis. The circumstances were recounted by Trudeau in his autobiography.⁹

Dr. Alfred Loomis had always been very friendly to me and had always taken an interest in my work both at the Sanitarium and in my little laboratory. I had a new proof of this when he wrote me in the fall of 1886 that he had presented my name for membership in two societies—the American Climatological Association [elected in 1885] and the Association of American Physicians [one of the original members, 1886]; that I had been elected to both and that he wanted me to write a paper for the Climatological Association which met in Baltimore the following May (1887). I had never belonged to any medical society or attended medical meetings, but I was much pleased at Dr. Loomis's interest and decided to write a short paper for the Climatological Association, describing the influence of extremes of environment on my inoculated rabbits. In the winter I wrote the paper . . . and we went to town in May so that I might be present at the meeting. . . .

I left my wife and children in New York and went down on the afternoon train to Baltimore with Dr. Loomis. It was the beginning of June, and terribly hot when we reached Baltimore that evening. I hardly slept at all that night. I don't think this was entirely due to the heat, however, as I was beginning to dread the idea of speaking in public before a large audience of doctors, and I am sure this kept me awake. The next day was just as hot and I could eat no breakfast. I went to the meeting and found the large hall packed with medical men. I sat next to Dr. Loomis and listened to the papers on the program, but it seemed a long session and the dread of having to speak before such an audience increased.

It was almost time for my paper when I began to feel dizzy and faint. I leaned over

to Dr. Loomis and said: "Doctor, I feel badly." He turned around and looked at me and said: "Get up and go out." I tried to, but just before I got to the door darkness overtook me and I fainted. The next thing I remember I was lying on the floor in the hall just outside the meeting room, and I could hear the hum of voices. Dr. Loomis was leaning over me and saying: "Where is your paper?" I gave it to him, and then lay there in a sort of half-conscious state listening to Dr. Loomis's strong voice as he read my paper. Then came loud applause, and soon Dr. Loomis came back and handed me the paper and said: "That was a good paper." Other men crowded around me and shook hands with me, and spoke of the paper and hoped I was feeling all right again. I got to my feet and walked out into the streets while somebody held my arm and I soon began to feel better.

This is my first experience at a medical meeting and the way I read my first paper. I was thoroughly ashamed of myself, but there was no help for what had happened, and I tried to lay my fainting entirely to the excessive heat. I found some comfort, however, later in the fact that my paper was noticed by many of the medical journals in this country, and that abstracts of it appeared in two or three of the well-known medical publications abroad.

When I got back to New York that night I vowed I would never go to a medical meeting again, but I have done so nevertheless on many occasions. I was a long time overcoming my stage-fright when speaking in public, and I am not so sure that I have quite done so yet. . . .

It was at the meeting of the Climatological, where I fainted, that I first met Dr. William Osler and Dr. William H. Welch and subsequently I came in contact with both of them when I attended the meetings of the Association of American Physicians in Washington and when my visits to Dr. Thomas's home in Baltimore became very frequent. Both of these great physicians, who had already made reputations which were not confined to this country, took an interest in my experimental work and from the first gave me their advice and support. Dr. Welch, who had worked in Koch's laboratory, took a special interest in my attempts to cultivate the tubercle bacillus, and it was a proud day for me when I sent him a tube containing a pure culture of the germ for demonstrations to the students at The Johns Hopkins University School of Medicine.

Dr. Osler was also keenly interested in my sanitarium and always gave the obscure and struggling little institution the support of his approval. In the first edition of his famous *Practice of Medicine*, published in 1893, he did not hesitate to refer approvingly to the Adirondack Cottage Sanitarium [Fig. 9] and the principles of treatment it

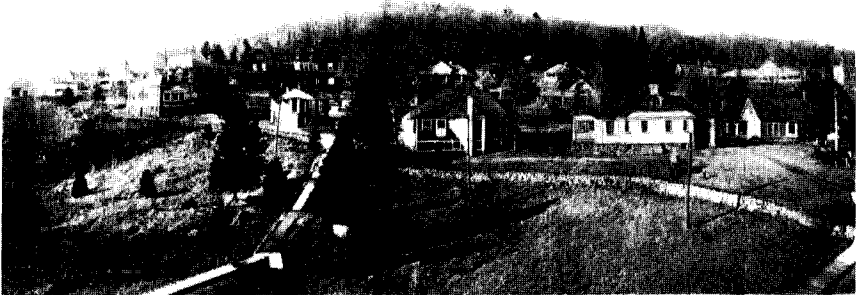


FIG. 9. The Adirondack Cottage Sanitarium

stood for. The support of his great name no doubt did much to attract attention to its work, both here and abroad.

When the National Association for the Study and Prevention of Tuberculosis, in which Dr. Osler was so prominent, was formed, I met him regularly at the early committee meetings, and it was no doubt greatly through his influence that I was elected the first president of this splendid national movement against tuberculosis. It was another red-letter day in my life when, at the first meeting of the National Association, in Washington on May 18, 1905, I stood on the platform with Dr. Osler and Dr. Hermann M. Biggs and addressed the great, earnest body of physicians and laymen before me.

Trudeau the man and the physician is vividly described by Henry M. Thomas, the first neurologist at The Johns Hopkins Hospital, who was a patient of Trudeau's at Saranac and remained his close friend throughout life:¹⁰

Dr. Trudeau, when I first knew him, was 40 years old and his health was as good as it ever became. Indeed, the first impression that he made on me, of a man in vigorous active health, abounding in energy and love of life, was only confirmed by a more intimate knowledge. . . . The only physical limitation . . . was his inability to take long walks, skate, run, swim, or row.

His days were full, and he passed quickly from one thing to another giving to each enthusiastic attention. At this time, Saranac Lake was a compact little village in which we were all thrown very closely together. A single stranger in town, or, indeed, a new dog, created remarks and had to be explained. There were not many very sick people among us, and as Dr. Trudeau examined his patients only very rarely, some of them only when they came in the fall and when they went out in the spring, and visited them only when there was special need, his winter practice at this time was not very exacting.

The sanitarium was three years old and then contained about 30 patients. The entire management was on his shoulders and, of course, occupied a great deal of his time. He had started almost unconsciously a wonderful institution, and it was amusing to see his assumed consternation at its growth. He would half-jestingly complain bitterly of the load he had to carry, while grasping with avidity every possible chance of increasing it.

He worked some part of every day in his laboratory which consisted of his narrow office with a boot closet at the end, his barn, and the pit that he had dug in his backyard. . . .

Just at this time many cures for tuberculosis were being advanced, most of them based on the supposed germicidal action of various agents. He tested these and many other things in the hope that he could find something that would kill the organism within the body.

A French observer had stated that men who etched on glass with hydrofluoric acid seldom had tuberculosis, and it was supposed that it was breathing the fumes of this chemical that accounted for this supposed effect. This we tried and it did, indeed, kill the germ in culture. I saw that he would like to try it on a patient as well as on inoculated animals, and I suggested that I try it on myself. He was somewhat loath to let me do so, but finally consented, and thereafter I sat for two hours a day in a room breathing the fumes of hydrofluoric acid, with the result that every bit of glass in the room was etched and that the bacilli disappeared from my expectoration. The rabbits did not fare so well, and although one or two other patients tried it, no further result was obtained.

The deftness and skill which Dr. Trudeau showed in all his actions was very evident in his laboratory technique [Fig. 10]. Even though the apparatus was simple in the extreme, it was nicely adapted for its purpose and was used by a master workman. One thing in particular I should like to mention, as it never failed to arouse my astonished admiration. The thermostat was heated by a kitchen coal-oil lamp, and Dr. Trudeau regulated the temperature by turning the flame up or down and opening one or more of the doors of the wooden cases that surrounded the tin box. This was not hard to do during the day while the fires in the house were kept up, but it required skill to arrange for the whole night when the fires went out and everything was apt to freeze. Before going to bed he would look at the barometer on his table, go out-of-doors and look at the thermometer, make an observation of the heavens and as a result he would turn the flame up or down, and shut or open the various doors. In this way, he was able to keep the temperature of the thermostat within the proper limits. . . .

Medicine was not a business to Dr. Trudeau, nor was its study a fascinating response to scientific curiosity. The central, compelling force was a strictly humanitarian desire to do everything he could to cure tuberculosis, or, if not this, to alleviate the condition of the sufferer as much as possible. . . .

His was a nature that appealed instantly to everyone who met him and it was easy for him to influence even casual acquaintances. He used this power with great skill in controlling his patients, and getting assistance for his charitable work. Men and women gave him without stint their unremunerated labor, and others delighted to help him with their money. This power which he retained to the last is shown very beautifully in the account which Mr. Clayton Hamilton, in his recent book *On The Trail of Stevenson*, gives of his single interview with Dr. Trudeau. The trail had led



FIG. 10. Edward Livingston Trudeau (Reprinted from Edward Livingston Trudeau: An Autobiography. Doubleday Page & Company, Garden City, N.Y., 1916)

Mr. Hamilton to Saranac Lake in the Christmas season of 1911, where he saw Trudeau, who was then ill and sitting out on his little porch. They talked about Stevenson and of Dr. Trudeau's own work. Among other reminiscences, Dr. Trudeau recounted, as he delighted in doing, Stevenson's remark on one occasion in which he had been decoyed into the laboratory. Stevenson, after looking for awhile at the cultures and specimens, said about as follows: "Trudeau, we both are bearing lanterns, but I must say yours smells to me most confoundedly of coal-oil." In relation to this story, Mr. Hamilton writes: "The doctor told me this with humor; but it did not seem to me so funny when I thought about it afterward. At present I remember an eager, active-minded man sitting anchored in a lounging chair and muffled among fur; talking with that tense voice of the achieving dreamer; at home in life, though exiled from its laughing and delightful commonplaces; cheerful and alert, though slowly dying; young, clear-eyed, and still enthusiastic, although already ancient in endurance; lying invalided while his City of the Sick grows yearly to greater prominence among the pines; fighting with an easy smile the death that has so long besieged him, to the end that others after him, afflicted similarly, may not die. And the best of our tricky and trivial achievements in setting words together dwindle in my mind in indistinction besides the labors and the spirit of this man.

THE FIFTH ANNUAL MEETING

The fifth annual meeting of the Association was held in Washington in the hall of the new Grand Army Building on September 18, 19, and 20, 1888. There were 53 members in attendance and for the second, and final, time Alfred L. Loomis occupied the presidential chair during the various sessions.

In his Presidential Address, Loomis said that the Association had not only made a scientific record for itself in its early years, but that it had stimulated the profession in this country to harmonious work in an important field and had given such prominence to climatology and hydrology in this country that our springs and health resorts were being placed on a more intelligent and scientific basis. As a result, English and French physicians were already sending their phthisical and rheumatic patients to those American resorts receiving the sanction of this Association. The subject of his second Presidential Address was the climate and environment best suited to old age in health and disease—it was, in fact, one of the early papers on the health problems of the aging population. He began by stating that there was nothing perhaps more prejudicial upon the aged than cold, quoting Farr in the Third Annual Report of the Registrar General of England that "the rate of mortality rises in the aged as the mean temperature falls." After thoroughly considering the subject, he reached several conclusions: 1) Healthy old age thrives best and is most vigorous when it can be passed in moderately warm climates. 2) The localities best suited to the development of healthy old age are those that enable an out-of-door life with surroundings and associations conducive to mental and physical activity free from excitement. 3) The locality suited to healthful development of age must furnish

an abundance and variety of well cooked food; the comforts and, if possible, the luxuries of life must also be within easy reach, for if there is any one period of life more than another in which comforts and luxuries are essential to healthfulness it is that of old age. He pointed out that it is never safe for an aged person with chronic bronchial catarrh to pass quickly from a very dry to a very moist climate; he found that from December to April, Nassau, the Bermudas, and Monterey are best suited for this type of individual, while during July and August such persons do well at Newport or Cape May. For the elderly patient with phthisis, the best locality in winter months is on the Gulf Coast of Florida; during the early spring, Thomasville, Georgia, and Aiken, South Carolina are places where they could spend two or three months with benefit on their way north; in summer, the seacoast of Cape Cod and Narragansett furnishes atmospheric and hygienic conditions especially adapted to older persons with this disease. It is clear that Loomis had a very affluent practice and that the majority of the elderly could not possibly follow such well-intended advice. He admonished physicians who had passed 60 years, especially if their previous history indicated a strong liability to pulmonary disease, to remember that a doctor above ground can accomplish more in the 9 months of the year than he can below in 12. Referring to patients with arthritis and gout, he stated that he had long since abandoned the local measures usually resorted to in their management and had relied almost exclusively upon diet and climate.

ALFRED L. LOOMIS

Although Loomis's presidency of the ACA ended in 1889, he remained a prominent figure in the first decade of the Climatological's existence. As an organizer of the Association of American Physicians (AAP) and president of that organization in 1892, he was an eminent physician among eminent physicians. Loomis stated in his Presidential Address to the AAP that there was now full appreciation that the theory and practice of medicine had given place to the science and art of medicine and that the nature of this change could not be more tersely or aptly described than in the words of Ruskin: "The work of science is to substitute facts for appearances and the demonstrations for impressions." This he interpreted to mean that all our errors in science are subjective: "The day of speculative medicine has passed," he said; "henceforth we must know, not suppose." In testing medical work by this standard, it was all too evident to him that we are called upon to undo, as well as to do. To this end there must be a clear consciousness of the boundary line between speculation and demonstration. The tripod support of science is observation, theory, demonstration. The first gathers facts, the second consid-

ers their relations, and the third tests all. He who offers observation alone asks your judgment as to their accuracy and your help in determining their relations.

“We have started afresh at the very rudiments of our science, and in the kindergartens of the laboratory we are seeking to know the laws of health and the causes of disease; to have all theories based upon clearly determined facts, and use such theories only as guides to the discovery of the missing links in the chain of investigations. . . . The final test of a scientific mind is its power of deciding, after any given demonstration, between legitimate conclusions and unfounded inferences. When the medical history of the last half of the 19th century shall be written it will be largely that of the laboratory. Among the names which the 20th century must honor, none will stand higher than those who, having devoted themselves to establishing objective facts of medicine, were not beguiled by their work to elevate the experimental above the practical. Let us also, who are brought into such intimate relations with the practical, see to it that we are equally wise and self-controlled.”

A more personal side of Alfred Loomis is remembered by Guy Hinsdale, a revered member of the American Clinical and Climatological Association, and its secretary for many years:

My introduction to climatology was through a very interesting experience. When a boy I had been fascinated by a good book on camp life in the Adirondacks, written by the Reverend W. H. H. Murray, and eventually I had an opportunity to explore this region. It happened that I met a friend in Burlington, Vermont, Dr. John B. Roberts, who later became a distinguished teacher of surgery in Philadelphia and we planned a short walking tour through the mountains, crossing the lake to Port Kent. Provided with small knapsacks, we started on the long tramp, visiting the Ausable Chasm, Ausable Forks, and Lake Placid which we reached through the Wilmington Notch and where we spent our second night. On the evening of the third day, we reached Martin's Hotel on the lower Saranac Lake, having made the trip of over 55 miles on foot all the way from Lake Champlain in three days. Neither of us knew that about a mile away, in a camp on a hillside, there was a man who was later to shed luster on this Association and the medical profession, Dr. Edward L. Trudeau. Trudeau had started a small sanitarium, which he called the Adirondack Cottage Sanitarium, about a year previously in a little building which is still standing. He had a few patients who were referred him by Dr. Alfred L. Loomis of New York, but we had no time to deviate from our definite plan which was to reach Paul Smith's. So we left Martin's at 6 o'clock on the following morning with canoe and guide and passing through lower Saranac Lake, negotiated the treacherous Round Lake and upper Saranac Lake to the Prospect House where another guide met us and took us through the Nine Carries, Lower St. Regis Lake, Spitfire, and Upper St. Regis Lake to Paul Smith's.

On the following day, we called on Dr. and Mrs. Loomis in their attractive camp. He was then the most distinguished and successful teacher of medicine in America and although we did not know it he had just been elected to his second term as president of the American Climatological Association. He told us about Trudeau and his courageous battle for health in the Adirondacks and urged us strongly to make his acquaintance, as Trudeau was in the habit of coming to Paul Smith's to attend many patients whom Dr. Loomis brought to the mountains. We found Dr. and Mrs. Loomis most hospitable and their kindness to two young Philadelphians made a great impression. Dr. Loomis was a very large man so it seemed to us and he aroused in us

a great desire to know more of life in the woods. . . . Dr. Loomis was born in 1833 and this Association should recognize the centenary of his birth. I trust my account of recollections by him may be considered as a tribute on this anniversary. He graduated from Union College in 1851 and studied in New York City at the College of Physicians and Surgeons where he graduated in 1852. He gave his attention to diseases of the lungs at a time when auscultation and percussion were acquiring great scientific importance in medical practice and in the treatment of such diseases. Loomis became a great specialist. In 1859 he was appointed visiting physician to Bellevue Hospital and in 1862 was lecturer on physical diagnosis at the College of Physicians and Surgeons. Four years later, he was appointed professor of the theory and practice of medicine at the University of the City of New York where he remained until his death.

The minutes of the Climatological meeting in 1895 reported the death of Alfred Loomis on January 23 of that year:

In his professional life Dr. Loomis was preeminently an active, energetic, sagacious physician. In all his relations to medicine and medical progress he was conservatively but uniformly progressive; never assuming an advanced position until fully, or even superfluously, convinced of its accuracy, he was unfaltering in its defense. . . .

Dr. Loomis was one of the faithful band who originated this Association and we all well know how faithfully he worked for its advancement and success. He was its first president and was again its president during the first Congress of American Physicians and Surgeons in Washington, assembled, and, as our delegate, was elected the president of the third Congress. At one time efforts to merge the American Climatological Association into another national organization threatened to destroy it. Dr. Loomis arose in his might and courage and averted the danger, if such existed. . . .

In expressing our sense of personal, as well as united, loss in the death of Dr. Loomis, we realize that we can do him no greater honor than to present this record of his work for a perpetual stimulus to members of this Association.

In his Presidential Address before the Association of American Physicians in 1895, William Osler remarked on the death of Alfred Loomis:

Of Alfred Lee Loomis I need not say much to this audience before which, as well as before a much larger, he played a strong role. Energy and determination, so clearly stamped on his features, led him early into the path of success and each decade added reputation and prosperity. Threescore and four years found him one of the most prominent figures in the profession of this country; a successful writer, a much-sought consultant, a busy man of affairs. Then the end, and happy for him, perhaps, while the harness was still on, and while the vigor of mind and body was unimpaired. In this Society, in the Congress of our united bodies, Dr. Loomis proved a trusty counsellor, an earnest worker, and a zealous supporter of the best interest of the profession. In his faithful attention to those duties which lie outside the daily routine of our lives, duties which we are only too apt with advancing years and with assured success to neglect, he was a notable example to us all.

OTHER PAPERS AT THE FIFTH MEETING

Most of the papers on the program were concerned with climate and its effect on tuberculosis, or descriptions of the climate and facilities for

patients with that disease in a particular locality. There were, however, in addition, other papers of particular interest, including one by Roland G. Curtin on "Climate as an Etiological Factor in Graves' Disease," and "The Effect of Climate on Bright's Disease" by J. C. Wilson of Philadelphia. E. L. Trudeau presented the results of a repetition of his experimental studies in rabbits reported at the previous year's meeting. By comparing the two experiments, he demonstrated clearly that the amount of "virus" entering the economy at one time is an important factor in determining infection, and the influence of a favorable environment was emphasized, not only by the entire freedom from disease presented by two of his rabbits, but by a careful study of the arrested lesion of their mates.

Trudeau also stated that although all attempts at the direct destruction of the tubercle bacillus in living beings by germicides had so far proved fruitless, the records of autopsies made by Vibret, Councilman, and others, as well as the evidence offered by the present research, furnished proof that the tissues themselves could, under certain conditions, either limit the destructive action of this microbe or even entirely rid themselves of its presence. The paper was discussed by Dr. W. T. Councilman of Harvard, who had been invited as a special guest to this meeting.

The only paper based on true laboratory experimental work was that of Frank Donaldson, Jr., who worked in the laboratory of Professor Newell Martin at Johns Hopkins. He further elucidated his studies of circulatory changes at high altitudes, which he had presented at the previous year's annual meeting. He concluded that all disturbances of the circulation at high altitudes were related to the lessening of the normal pressure with which the lungs ordinarily press against the heart and great vessels.

It was clear at this fifth meeting that the members of the Association were interested in diseases other than tuberculosis. The program contained a lively symposium, consisting of a paper by F. H. Bosworth of New York on "The Relation of the Nasal and Neurotic Factors in the Etiology of Asthma," followed by another paper on the same subject by E. L. Shurly of Detroit. After these two presentations, remarks were made by W. H. Daly of Pittsburgh, Pennsylvania, who had recently read an important—and widely applauded—paper on this subject before the Congress of the Laryngological Association in New York. The final discussion was by Andrew H. Smith of New York. There were also reports of two epidemics of cerebrospinal meningitis in New York State: one by Leroy J. Brooks of Norwich, New York, and the other by Willis E. Ford of Utica.

Shurly's work was done in the physiological laboratory of the Detroit College of Medicine, where he demonstrated that stimulation of the vagus

nerve in dogs resulted in marked contractions of the trachea, bronchial tubes and diaphragm. A second series of experiments consisted of exposing the sphenopalatine ganglia in the dog. Stimulation produced contraction of the nasal, palatine, and upper constrictor muscles. In short, the dog sneezed, but no contraction of bronchioles took place. Thus, experimental medicine was beginning to play a role in the programs of the Climatological. The discussions in this symposium revealed the field to be in a very primitive state, and the true basis of hay fever and asthma not yet delineated. Progress would come in the early 1900s, when Meltzer would show that hypersensitivity reactions resulted in severe bronchial constriction.

THE SIXTH ANNUAL MEETING

The sixth annual meeting of the American Climatological Association was held in Boston on June 25, 26, and 27, 1889. Thirty-three members were present, with Dr. Vincent Y. Bowditch in the chair.

Vincent Yardley Bowditch¹¹ spent his entire career in the fight to do away with tuberculosis. He was one of the founders of the National Tuberculosis Association. As its fourth president, he guided the American Sanatorium Association from infancy to robust adolescence. He was also one of the founders of the Massachusetts Tuberculosis League and its first president. In 1891 he opened the doors of the Sharon Sanatorium and controlled its fortunes as long as he lived. Largely because of the excellent results at Sharon, the State of Massachusetts established at Rutland the first state sanitarium in the country, and in the capacity of examining physician, Bowditch was for years a guiding spirit of this institution. A delightful biography of his father, Henry I. Bowditch, in two volumes established him as a writer of real ability.

Bowditch's Presidential Address was entitled "Comparative Results in Ninety Cases of Pleurisy, with Special Reference to the Development of Phthisis Pulmonalis." One of the highlights of the meeting was the presentation of a requested paper by Henry I. Bowditch entitled "Open-Air Travel as a Cure and Preventive of Consumption."¹² Dr. Bowditch was unanimously elected as an honorary member of the Association at this meeting. There were the usual group of papers on various aspects of tuberculosis but, in addition, there was an important presentation on the mortality of acute lobar pneumonia, based on a study of all the cases of this disease treated at the Massachusetts General Hospital from the first case in 1822 up to the present day. This paper was given by C. W. Townsend and A. Coolidge, Jr. There were again several papers relating to asthma, including one on its causation and treatment by Beverley Robinson of New York and one on its climatic treatment by Frederick I. Knight of Boston. Alfred L. Loomis gave an interesting talk on rest and

exercise in heart disease. At this meeting, scientific sessions were held in the afternoons as well as in the mornings.

THE SEVENTH ANNUAL MEETING

The seventh annual meeting was held in Denver, Colorado on September 2-4, 1890, under the presidency of Charles Denison.

On Friday, a complimentary excursion was provided by the Union Pacific Railway—to Idaho Springs, with the return through Clear Creek Canyon. On Saturday the group started on a similar excursion, given by the Denver and Rio Grande Railway, around the Circle: they traveled through Pueblo and Veta Pass; spent the first night in Durango; continued via the canyon of the River of Lost Souls to Ouray for the second night; and returned via the Black Canyon of the Gunnison, over Marshall Pass, through the Grand Canyon of the Arkansas and back to Colorado Springs.

The Colorado Midland Railway also placed at the disposal of the members a complimentary excursion, embracing two days at the end of the meeting, to Glenwood Springs via Leadville and back; members who were able to stay found this trip enjoyable.

Charles Denison, in his welcoming address, praised the magnificent climate of Colorado. He indicated that one of the chief reasons the Association met in Colorado was to enable its eastern members to encounter the profession of the far West, hear their views, and join in the discussion of their western experiences. The sessions were lengthened by a day and representative men from New Mexico, Arizona, Utah, and Colorado were present to discuss subjects of interest to the easterners. Even in those days there were scheduling conflicts, as the meeting was held shortly after the International Medical Congress in Berlin and such staunch Climatological members as Pepper and Kretschmer were unable to attend.

Denison, in his presidential address, talked about abnormal intrathoracic air pressures and their treatment. He introduced his own spirometer for measuring vital capacity and compared it with others then in use, showing that his presented little or no resistance to the expired breath and thus gave better measurements than the spirometer of Marsh or of Hutchinson. He gave a complete review of respiratory physiology as it was understood at that time, pointing out that the source of governing power of all this respiratory activity, the so-called respiratory center, lay in the medulla, an association proved in 1879 by Austin Flint, Jr. Denison noted that the chief stimulus for the respiratory center is an oxygen deficiency. If this deficiency is present, the demand for a renewed supply is sent out by the respiratory center to the inspiratory nerves and the resulting effort at inspiration seems to be without reference to carbon

dioxide. On the other hand, if there is an excess of carbon dioxide in the blood, the stimulus is sent out from the respiratory center especially to the expiratory nerves. In order to demonstrate the influence of respiratory activity upon the heart's action, Denison made sphygmographic tracings of the pulse wave under varying conditions of breathing and demonstrated that the heart always works in harmony with intrathoracic air pressure. In this address, which occupied a full 46 pages in the *Transactions*, he went on to discuss abnormal states of intrathoracic pressure including 1) fibroid process; 2) atelectasis; 3) asthma; 4) emphysema; 5) bronchiectasis; 6) pulmonary hemorrhage; 7) empyema and thoracentesis; 8) the drainage of pulmonary cavities; and last but not least, 9) membranous croup or any stenosis of the larynx. He found time to treat only the first four in this paper and promised a continuation at a later date. Denison also presented an interesting definition of bronchial asthma: "It is a neurosis producing a paroxysmal dyspnea, due to irritation 'in loco,' or of the pneumogastric nerve, causing contraction of the circular muscular structure of the bronchial tubes, thus limiting inspiration chiefly, but also expiration; and eventuating (if prolonged) in structural change in either one of or both the vesicular or bronchial portions of the lung." He described a device, which he called the "Portable Lung Compressor" and had constructed for the self-treatment of emphysema. Its purpose was the rhythmical and forcible compression of the chest in consonance with respiration.

In the next article, D. M. Cammann of New York discussed the pneumatic treatment of disease, and presented illustrative cases. He pointed out that the use of rarefied and compressed air in the treatment of disease was nothing new. In 1664, Henshaw, an English physician, proposed the technique of varying the pressure of the atmosphere surrounding the patient. Patients were placed in chambers in which the air was rarefied or compressed. It was generally considered that the methods of inspiration of condensed air and expiration into rarefied air were the most valuable. By inspiratory differentiation was meant the act of breathing the atmospheric air while that surrounding the body was rarefied; and by expiratory differentiation was meant the breathing of atmospheric air while that in the cabinet was compressed. In breathing air compressed relatively to that surrounding the body, the chest expands and takes in more air than in a normal respiration. "But if we expire into the compressed air, the residual air remaining at the end of expiration is greater than after a normal expiration unless more than the usual expiratory force is used. The reverse is the case if we breathe rarefied air; the inspiration will not be so deep and less residual air will remain after expiration than normal." Cammann presented cases showing the use of this technique in dyspepsia, chronic bronchitis, phthisis, old pleuritic adhesions, asthma and other conditions.

In the next paper, J. H. Kellogg of Battle Creek, Michigan, discussed a "Graphic Method of Recording Diseased Conditions of the Lungs, and a New Form of Pneumograph." He pointed out that the introduction of the graphic method of studying physiological conditions had ushered in a new era and that a new science in physiology had been created. For several years he had been trying to apply these methods to the study of man and had made thousands of observations with the sphygmograph, the cardiograph and the pneumograph, and other instruments that utilized the recording tambour and cylinder. He described an unusual instrument with which he made tracings of the body under various conditions for the purpose of studying the relation of the contour of the body to internal conditions, and he had made a study of the changes that occur in the form of the trunk during respiratory movements. All of these studies were done on presumably normal individuals. He also described a new form of pneumograph, which enabled one to study the character of the entire respiratory movement. It consisted of two chambers separated by a diaphragm of thin rubber. One of these chambers was connected with a recording tambour, which wrote upon a sheet of smoked paper carried by a revolving cylinder such as used with the ordinary pneumograph. The other chamber was connected with a breathing mask which in use was placed over the mouth and nose. This chamber was provided with a second opening, the size of which was controlled by a shutter that could be adjusted at will. The patient under examination breathed into this chamber, which might be called the breathing chamber of the instrument. With the chamber completely closed, the breath would simply pass from the lungs into the chamber and back again, there being no change of air; but with the shutter open, air was drawn into the chamber with each inhalation and expelled at each exhalation. The resistance that the air met in passing through the shuttered opening gave rise to changes in pressure within the breathing chamber, the pressure being diminished during inspiration and increased during expiration. The amount of this change in pressure depended upon the size of the opening and could be exactly measured by connecting the breathing tube with a water column. The average pressure that he observed was equivalent to a column of water one-half inch in height. This was certainly an amount too small to modify seriously the form of the respiratory movements. He felt that this instrument afforded an excellent method of detecting small degrees of emphysema as well as various forms of weakness in the muscular part of the respiration. Kellogg also described a simple apparatus for the determination of the quantity of CO_2 in atmospheric air, with which the amount of CO_2 present in either the atmosphere or in the expired breath of the patient could be determined.

In discussing Dr. Kellogg's paper, V. Y. Bowditch of Boston said that he considered the apparatus introduced by Dr. Williams very effective in

the treatment of pulmonary diseases, feeling that the greater part of its beneficial influence came from the gymnastic effect upon the chest.

The *Transactions* for this sixth meeting also contained a memorial of Dr. Alexander Yelverton Peyton Garnett, who had died during the summer of 1888. Garnett was one of the most distinguished and colorful members of the Climatological (See p. 14). Born in Virginia on September 19, 1820, he joined the Navy after graduating from the University of Pennsylvania School of Medicine at the age of 19. Garnett was elected president of the American Medical Association, presiding at its meeting in 1886. His address there on medical education excited a great deal of notice and approval at the time as he brought into bold relief the evils of medical education in this country.

THE EIGHTH ANNUAL MEETING

The eighth annual meeting of the American Climatological was held at Washington, D.C. from September 22 through 24, 1891, in connection with the Congress of American Physicians and Surgeons. Fifty members were present. In his Presidential Address, Dr. Frederick I. Knight (see p. 10) of Boston pointed out that the Association had clearly justified its creation. Beginning seven years ago with a program of six papers "the material offered us has gradually increased from year to year, until today a program of 38 papers is presented of a quality which will challenge comparison with any other organizations." He recalled that when the Association was founded and the name "Climatological" adopted, it was feared by some that as the number of members who were in a position to offer anything original pertaining to climatology was so limited, the organization might have a struggling existence. It was, however, provided from the start that diseases of the respiratory and circulatory organs should be included in the province of the Association, and soon hydrology was added. What a vast field these boundaries gave the ACA can be seen from the papers on the program. Nevertheless, climatology did still engage a good deal of their attention, and the effort to hold the annual program at some noted health resort was usually carried out.

Of particular interest at this meeting was the presentation of the clinical story of the influenza epidemics which occurred in 1889, 1890, and 1891 in Philadelphia, in Chicago, St. Louis, New York, and Savannah. The meeting featured very extensive discussion of these various reports. Much of the discussion centered around the contagion of the disease and primitive studies of its epidemiology. In a paper on the value of Koch's remedy, Frank Fremont-Smith pointed out that those cases in which the dose is adjusted so that fever is not produced appear to show definite and continued improvement in general physical condition, in character of cough, and amount of expectoration.

THE NINTH ANNUAL MEETING

The ninth annual meeting was held at Richfield Springs, New York, on June 23, 24, and 25, 1892 (Fig. 11). The Council recommended that the papers of the Association be given to the publishing house of J. B. Lippincott Company of Philadelphia for *The Climatologist*, which Lippincott anticipated publishing, in return for which the usual number of bound copies would be required. During the meeting, a delightful dinner was held at Thayer's Restaurant on Otsego Lake and Dr. Willis E. Ford,¹³ who was president that year, and his wife gave a reception in the Springs House the evening of the 23rd, at which the members and their wives enjoyed meeting the elite of Utica and Richfield Springs.

The first paper on the program was by Abraham Jacobi of New York, who discussed guaiacol in the treatment of pulmonary tuberculosis. Guaiacol, an ethereal product of beechwood, is soluble in 200 parts of water and was first recommended for its efficacy in tuberculosis processes in 1880, by Professor Max Schuller of Berlin. The next paper, by Vincent Y. Bowditch, may have been the first on the effect of change of posture upon heart murmurs. Bowditch stated that he had been unable to find any references to this subject in medical books and thought it worthwhile to report his experiences. He had been struck chiefly by the following facts: that in most cases, systolic murmurs heard at the base of the heart are intensified when the patient is lying down (where any difference is noticed at all by change of positions); however, he found the reverse to be true at times as well. He later found a paper in the *New York Medical Record* of June 11, by Dr. O. B. Campbell of Ovid, Michigan, in which the same observations were made. Dr. Loomis had also reputedly discussed this subject at the Congress of American Physicians and Surgeons, but his remarks were apparently not printed.

Alfred L. Loomis discussed the underlying conditions that are usually present when sudden and fatal heart failure occurs. These fell under three headings: 1) those in which the heart had for a long time been called upon to perform an abnormal amount of work, as in valvular or arterial disease; 2) those in which obstructive changes in the coronary vessels had markedly diminished the nutritive supply of the cardiac muscle; and 3) those in which toxic influences acted directly upon the nutrition of the cardiac muscle.

The bizarre types of treatment given to patients with tuberculosis in this era were well illustrated by E. Fletcher Ingals's discussion of the Shurly-Gibbes treatment of tuberculosis. The iodine and the gold and sodium bichloride treatment of tuberculosis originated with Drs. E. L. Shurly of Detroit and Heneage Gibbes of Ann Arbor when in the fall of 1890 they reported the outcome of their numerous experiments on animals. Owing to the furor created by the announcement that Koch had



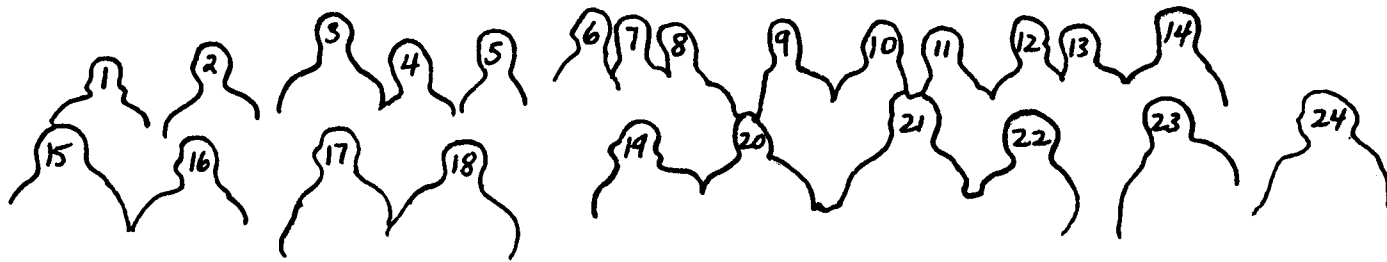


FIG. 11. Members of the American Climatological Association, Richfield Springs, N.Y., June 1892 (Courtesy, The Francis A. Countway Library, Boston, Mass.) 1- C.C. Ranson, 2- Thomas J. Darlington, 3- H.F. Williams, 4- H.L. Elsner, 5- C.E. Quimby, 6- E.O. Otis, 7- H.L. Taylor, 8- G.R. Butler, 9- I.H. Platt, 10- Harrison Allen, 11- W.M. Gibson, 12- E. Evans, 13- H.G. Jones, 14- W.P. Dodge, 15- J.B. Walker (Secretary), 16- F.I. Knight, 17- V.Y. Bowditch, 18- A.L. Loomis, 19- Charles Denison, 20- W.E. Ford (President), 21- R.G. Curtin, 22- Beverley Robinson, 23- S.W. Langmaid, 24- W.G. Wheeler

discovered a remedy for tuberculosis, some enterprising newspaper men who had heard of Shurly's experiments succeeded in obtaining from the report of the medical society of Detroit and from the Harper Hospital certain facts with reference to his researches; these facts, when amplified and illuminated by the brilliant imaginations of the reporters, made many columns in the daily press and were sent out to all parts of the country. The craze over Koch's tuberculin kept alive the interest in Shurly's treatment and caused numerous physicians in various parts of the country to give it premature trials. Ingals had treated in his private practice over 200 cases with this regime. He was so impressed with his results in early or moderate tuberculosis that he made the following statement: "But for myself I would feel that I had not done my patient justice if I had not given him the benefit of a trial of this treatment, providing the disease of the lung had not extended below the third rib when he first came under my observation." Drs. Allen and Taylor, who discussed this paper, also reported good results.

THE TENTH ANNUAL MEETING

The Tenth Annual Meeting of the American Climatological Association was held in the hall of the College of Physicians of Philadelphia from May 25 to 27, 1893. A committee was appointed to prepare short biographical sketches of the services of deceased members with the object of publishing them in the *Transactions*. The members were entertained at luncheon on Friday at the Art Club by the president, Dr. Curtin; a dinner was given the fellows of the Association by the Philadelphia members at the Bellevue Hotel on Friday evening; and at the invitation of Provost Pepper and Professor J. S. Billings, a luncheon was enjoyed in the library building of the University, after which the Bureau of Hygiene was thrown open for inspection under the guidance of Dr. A. C. Abbott, chief demonstrator. A special event was a request by Dr. Quimby to discuss the availability of ozone which, during that period, was employed as a therapeutic agent, "our most powerful antiseptic and stimulant to animal life heretofore obtained and retained with such difficulty." Although the virtues of local application were expansively described by Dr. Quimby, anecdotal evidence can be deceptive, since this form of treatment soon disappeared from the medical armamentarium.

THE FIRST DECADE ENDS

Since this was the Association's final meeting of the first decade, Roland G. Curtin¹⁴ in his Presidential Address gave a brief description of the society's accomplishments at the first nine meetings. Curtin pointed out that at the founding of the Association some of the members

had doubts as to its ultimate success but were proved wrong. He believed that the *Transactions* contained reports with much of value and was as progressive as any special society's publication in terms of new and important material. Climates were studied along with their fitness for special diseases so that now one could direct patients with more certainty to places that would be not only beneficial but also comfortable and attractive. He gave a brief summary of the papers published, showing how numerous and varied were the subjects considered at the first ten meetings: "Pulmonary Phthisis and Diseases of the Air Passages," 60 papers; "Pneumonia and Pleurisy," 6; "Asthma," 4; "Diseases of the Heart," 15; "Epidemic Diseases," 18; "Mineral Springs and Baths," 12; "Experiments as to the Effects of Air Pressure on Diseases of the Heart and Lungs," 9; "Studies of Special Climates," 62. Many papers on special subjects could not be easily categorized; including these brought the number up to about 220. It should be remembered that several monographs had been read that were not handed to the secretary or were omitted from the *Transactions* because they had been published elsewhere.

After the first and second annual meetings, the Association had to pay several hundred dollars for the publication of the *Transactions*. In the past two years, however, offers were received from more than one publisher to print them gratuitously after the publisher had made use of them in prominent medical journals. Curtin made several important suggestions. The first was that since valuable discussions of papers had been lost to outside members of the profession because they were either not reported or were imperfectly reported, a competent stenographer should be permanently employed. He also recommended that the Association have a permanent committee on health resorts to collect important data and report to the society each year. He suggested that the organization should be ready to raise its united voice in all important national questions, and that they might assist in guiding Congress to establish a National Leper Colony, which was greatly needed at that time. He also indicated that there should be a plan to raise the standard of membership and that a limit should be placed on the total membership.

The excellent selection of papers at this meeting covered such broad and varied subjects as angina pectoris following injuries to the precordium, seasonal influences in erysipelas, considerations concerning cholera with a discussion of the 1892 epidemic in New York, cardiac dyspnea, and quinsy and its treatment by early incision. Now that the proceedings were being recorded, the discussions following presentation of the papers increased in volume and interest.

Chapter 4

THE SECOND DECADE: 1894-1903

THE ELEVENTH ANNUAL MEETING

The eleventh annual meeting was held in Wormley's Hotel in Washington, D.C. from May 29 to June 1, 1894. Andrew H. Smith of New York gave the Presidential Address, entitled "Alimentation in Pulmonary Diseases." The primitive state of knowledge of the digestive process at that time is embodied in the following statement from his address: "The products of digestion when received into the circulation are not blood. They represent neither serum nor corpuscles; they are, in fact, dead matter, requiring to be vitalized by the process of assimilation before they become a part of the living blood. Of the manner in which this change takes place we know almost nothing."

Andrew Heermance Smith¹ (1837-1910), for more than 50 years a practitioner of medicine in New York City, was born in Saratoga County, New York on August 17, 1837. He was educated at Union College and the College of Physicians and Surgeons where he took his M.D. in 1858. He was physician to St. Luke's and Presbyterian hospitals and surgeon to the Manhattan Eye, Ear and Throat Hospital. Smith was president of the New York Academy of Medicine in 1903-04.

The Presidential Address was followed by a paper on "The Ratio Which Alimentation Should Bear to Oxygenation in Disease of the Lungs," by Boardman Reed of Atlantic City. It was his thesis that when the intake of oxygen is large, as occurs in the case of robust persons who are exercising actively in the open air, it is manifest that a maximum amount of food will be demanded and can be safely given. When, on the other hand, a patient has one or even both lungs crippled by disease, leaving him as often happens only one-half or one-third his normal breathing power, and when the patient is moreover entirely at rest, being confined to bed in a close, poorly ventilated room, his consumption of oxygen is relatively very small. The amount of food that he can digest and thoroughly oxidize into a nutritive pabulum for the uses of the economy is very much less.

Several papers concerned various aspects of the prophylaxis and treatment of pulmonary tuberculosis, but the remaining papers covered a wide range of subjects. Other topics included a report of cases of chronic heart disease treated by the Schott method of baths and gymnastics, an early program for the controlled exercise of cardiac patients; pathological conditions of the heart in diabetes and their relations to diabetic coma; a new and distinguishing sign of latent aneurysm of the aorta, and a report of three cases of beriberi.

THE TWELFTH ANNUAL MEETING

The twelfth annual meeting was held on June 13 and 14, 1895, at Hot Springs, Virginia, with Dr. S. E. Solly² in the chair. At this meeting, Guy Hinsdale succeeded James B. Walker as secretary-treasurer, serving until 1918.

A handsome Englishman, Solly had arrived in Colorado Springs in 1894 and had quickly become a significant force in the community. He glowingly described the mineral springs of the area, one being suitable for derangement of the liver and spleen, another for biliousness and hemorrhoids, and a third for alcoholism and chlorosis.³ Solly published a book on medical climatology in 1897.⁴ Solly's later paper of 1902 pointed out that there were no sanitariums in Colorado until just before the turn of the century.⁵ The high-altitude cure consisted mainly of just living in the area, in boarding houses or in hotels, or in wagons and tents in the countryside, in line with one's economic status.

A resolution was offered on the death of Dr. Alfred L. Loomis, one of the Association's outstanding members and its first president (See p. 34). A second resolution offered by Frederick I. Knight was also unanimously adopted: "Whereas, since tuberculosis has been demonstrated to be a communicable disease, it has become doubly desirable that hospitals for the reception of the poor afflicted with this disease should be established. Resolved, that the American Climatological Association recommend the establishment of such hospitals in every State, not only for the relief of great suffering attending this disease among the poor, but also as a protection of the community against its spread."

The Committee on Health Resorts, through its secretary, presented its report, which is printed in full in this volume. The chairman of the committee was Vincent Y. Bowditch. In discussing the report, R. H. Babcock said: "As a member of the Association, I should like to have data furnished by the Committee with regard to resorts suitable for cardiac patients. It has been quite a question with me many times to decide where to send patients with heart disease. I should like information concerning the interior of Florida and Georgia particularly, and to learn of places which are not frequented by tuberculous patients. I do not like to send patients with heart disease where tuberculous cases abound. It seems as if the attention of physicians has been given to the great army of consumptives, to the apparent neglect of that large contingent of other patients who require removal to a salubrious climate."

The visit to Hot Springs gave the Association the opportunity to see the famous Warm Springs and the Healing Springs. On the day after the meeting, through the courtesy of Mr. H. W. Fuller, General Passenger Agent of the Chesapeake and Ohio Railway, the Association visited the Natural Bridge of Virginia and other points of interest.

The president gave his address on "The Principles of Medical Climatology," in which he reviewed the field in a very systematic fashion. Following this he opened the scientific program with a paper on "The Influence of Heredity Upon the Progress of Phthisis." The new secretary, Guy Hinsdale, then talked about "Recent Measures for the Prevention and Treatment of Tuberculosis." A review of the extensive provisions for tuberculous patients abroad showed how far behind America was in the systematic care of this large class of sufferers. He noted that the Adirondack Cottage Sanitarium, run by Dr. Trudeau, had just completed its tenth year. The annual report stated that from 20 to 25 percent of the patients were apparently cured after a prolonged residence. A "cure" was indicated by the absence of the rational signs of pulmonary tuberculosis and the bacilli in the expectoration for three months or more, or the absence of any expectoration at all; any abnormal physical signs were interpreted as indicative of a healed lesion. At that time this was still the only institution in America strictly built on the cottage plan. Hinsdale then proceeded to list other sanitariums which were either on the drawing boards or had recently come into existence. He also discussed the activities of the Society for the Prevention of Tuberculosis and its efforts to place tuberculosis on the list of reportable diseases, as well as efforts to enact laws to secure the exclusion of the meat and milk of tuberculous animals from the market. He discussed further the attempts of the Society to establish municipal tuberculosis hospitals, as well as state-run hospitals in a favorable elevation in the mountainous portion of Pennsylvania. It was his feeling that more societies for the prevention of tuberculosis should be organized, and that there was a need to organize and maintain special hospitals and cottage sanitariums for tuberculosis. The first step would be to find the localities where medical measures would receive the greatest aid from the natural resources of air, altitude and sunlight.

The early stage of scientific knowledge at this period was revealed in a paper by Richard C. Newton of Montclair, New Jersey, who reported observations appearing to establish the aerial transportation of malarial germs. Thomas D. Coleman, in discussion, felt that transmission by means of air was comparatively rare when compared with the transmission of the disease through drinking water. He thought that in many instances in which the infection was supposed to have taken place through the medium of air, the sources of the drinking water were not sufficiently considered. He stated that in certain regions of Georgia, with which he was acquainted, malarial regions had been entirely transformed by the introduction of artesian wells. He knew of two plantations where it was almost impossible for white families to live before the introduction of artesian well water for drinking purposes. The blacks persisted in

drinking the surface well water and suffered greatly from malaria. In the white families using artesian water, malaria had been absent for a number of years.

THE THIRTEENTH ANNUAL MEETING

The thirteenth annual session was held at the Laurel-in-the-Pines, Lakewood, New Jersey, on Thursday and Friday, May 12 and 13, 1896. The Presidential Address, entitled "Some of the Difficulties of Climatology," was given by James B. Walker. Dr. I. H. Platt of Lakewood welcomed the group to this popular health resort, which he stated was at the center of the largest population density in the country — namely, midway between Philadelphia and greater New York. It was absolutely free of malaria; in the midst of a pine belt on sand of about 700 feet in depth, it was thus free from soil or moisture. The low degree of atmospheric humidity made the days warmer (the time of most importance to invalids), and the nights cooler than those in New York and Philadelphia. He indicated that Lakewood was growing less popular as a health resort for the very sick and more popular as a pleasant resort for the tired or convalescent; and that the benefits gained by those in the incipient stages of consumption were very satisfactory. He also commented on the artesian wells, which furnished pure water, and on the method of sewerage disposal that emptied waste into the river about a mile below the town.

The program continued to be dominated by papers discussing climate in various parts of the country and the influence of climate on a variety of disease states. There was an extensive symposium-like discussion on the present treatment of hemoptysis.

The Association was notified of the formation of a similar Association in England during the past year under the title "The British Balneological and Climatological Society," the president of which was Henry Lewis of Folkestone, England. It was proposed that a committee be appointed by the president to represent the Climatological Association in opposing a bill pending in Congress to prohibit vivisection or animal experimentation in the District of Columbia.

The members of the Association and the ladies accompanying them attended a luncheon at the Ocean County Hunt and Country Club at the invitation of Dr. and Mrs. I. H. Platt. About 60 guests were present. After the luncheon, Dr. Platt took the members for a drive through Pine Park and around picturesque Lake Carasaljo.

THE FOURTEENTH ANNUAL MEETING

The fourteenth annual meeting of the Association was held in Washington, D.C. in 1897, in connection with the Fourth Congress of American

Physicians and Surgeons. It was at this meeting that the Council recommended that the constitution be changed to allow the election of honorary members, the number of which would not exceed 25. At this time, there were 121 members of the Climatological on the active list, including three honorary members.

The Presidential Address was given by E. Fletcher Ingals⁶ of Chicago whose topic was "The Antiseptic Treatment and the Limitation of Climatic Treatment of Pulmonary Tuberculosis." The program was, on the whole, a very uninspiring one, concerned mainly with the climate and its effect on various types of disease, with a few papers on treatment such as "The Salicylate Treatment of Hemoptysis" and "Calomel as a Curative Agent in Diphtheria." "Turpentine as a Remedial Agent" was discussed by James B. Walker and "The Treatment of Gout by Natural Mineral Waters" by Charles C. Ransom of New York.

Ingals, in his Address, pointed out that 25 years ago there were a few, more or less noted, health resorts in the country, where invalids repaired of their own volition, or were occasionally sent by the few physicians familiar with the locality, but that numerous places where invalids may now obtain satisfactory accommodations in the best atmospheric conditions were unknown. "That the members of our Association have done much in searching out the more valuable resorts and in securing suitable accommodations for patients cannot be gainsaid, and that we have correspondingly added our share to the great work of prolonging human life and mitigating suffering, no one can doubt, but that very much is yet to be learned, that the deductions from our observations are still in many instances crude, and that we have often been too enthusiastic in our hope for individual localities, cannot be denied; yet, as a rule our members have been reasonably conservative in their estimates of the value of climate and have patiently and conscientiously studied and labored for the advancement of science and the benefit of their patients." In this address Ingals also strongly endorsed the value of antiseptics in the treatment of phthisis.

THE FIFTEENTH ANNUAL MEETING: THE INTRODUCTION OF X-RAYS

The fifteenth annual meeting was held on May 4, 1898 in Bethlehem, New Hampshire, under the presidency of Edward O. Otis.⁷ Otis, in his Presidential Address, gave an excellent historical vignette of Auenbrugger and Laennec, the discoverers of percussion and auscultation.

The highlight of this meeting was the first discussion before the Association of the clinical uses of the "roentgen light," by Francis H. Williams of Boston, a pioneer in the application of this new technique in the United States. Williams had been invited by the president to

present this subject and he elected to make a general statement of the medical applications of x-rays, rather than limiting his discussion to their use in pulmonary tuberculosis. In this paper, he gave the results of clinical observations on his own patients, in order to emphasize ways in which an x-ray examination might corroborate other evidence or assist the physician to an earlier, or a more correct, diagnosis. Up to that time x-rays had been used mainly to detect foreign bodies and changes in shape and composition of bones (as in fractures, dislocations, necrosis, tuberculosis, osteosarcoma, deformed pelvis, rickets, and osteomalacia). They had also made possible the demonstration of gouty deposits about the joints as distinguished from rheumatoid arthritis. Williams emphasized that this new method of examination required large and expensive apparatus as well as experience. He stated: "The x-rays do not burn, and there need be no fear of injury from the accompanying electrical discharge to any individual if the examinations are properly conducted and simple precautions are taken. At the Boston City Hospital I have made about 2,000 x-ray examinations, and no one has received any injury or even inconveniences from them. It is easy to burn the fingers if they are put too near a candle, but it is not dangerous to read by its light.

"This new method of examining our patients has now passed the stage of mere interest and novelty, and in its own special field, if suitable apparatus is used, can be counted among our trustworthy aids to diagnosis."

There was a very lively and prolonged discussion of this interesting paper. Dr. J. E. Stubbert made the following comment:

The doctor referred to someone considering the examination by x-rays a joke; I have gone through the same experience. I remember Dr. H. P. Loomis once came to Liberty and told me he did not believe in the x-rays at all. I brought in a case which neither of us nor my house physician had seen before. I asked Dr. Loomis to examine the case, and he diagnosed it as consolidation of the right apex, with beginning of softening and some infiltration in the lower lobe. He made the rather significant remark that he might not have a cavity, but was beginning to excavate. I then examined the patient and agreed with Dr. Loomis' diagnosis. I sent for the house-doctor and he made an x-ray examination; after a moment he said, "This man has consolidation of the right apex, he has infiltration of the lower portion of the lung, and while he may not as yet have a cavity, he is going to have one in a short time." Dr. Loomis said: "Well, if it can be diagnosed in that way I will have nothing more to say," and he is now a convert. There is no doubt in my mind that we can diagnose (clinically), especially in thin subjects, very slight infiltrations at the apices of the lungs. We all know how difficult it is to educate our ears sufficiently to distinguish indistinct signs, but with the x-ray the very slightest infiltration is shown in the form of a slight haze.

Stubbert went on to say: "I do not know exactly how many hospitals have x-ray machines; I am told that at least 13 in New York have them. We have them in Boston and they are also to be found in Philadelphia,

Baltimore, Chicago, St. Louis, San Francisco, and probably in all of the large cities in the country.”

The state of therapeutics was again highlighted with a discussion by Abraham Jacobi of the use of ergot in chronic malaria. Evidence that the Climatological was at the cutting age of the social mores of the country was a paper by William Duffield Robinson of Philadelphia on “Climatology of Nudity: Partial and Complete.”

The minutes contained a memorial sketch of William Pepper, one of the founders of the Climatological and its president in 1886. Born on August 13, 1843, he was the son of Dr. William Pepper, former professor of medicine at the University of Pennsylvania. Pepper had a deep and lasting interest in climatology. He had prepared as long as 20 years previously most comprehensive plans for work in this department of medical science. He had arranged to have data collected from each county in Pennsylvania that would throw light upon the climate of its region, including a study of the atmosphere, the soil, the vegetation, the animal life, and all other physical matters relating to climate. Another member, Dr. Daland, published with Pepper the results of many of their conjoint investigations. Pepper also engaged in an exhaustive study of the mineral springs of America. One of his most important contributions was his appreciation of the relation of pathology to clinical medicine, which led to the founding and endowment of the William Pepper Clinical Laboratory at the University of Pennsylvania for the purpose of studying the pathologic problems in clinical medicine. In 1870 Pepper was made lecturer in clinical medicine and in 1874 professor of that branch. From that time forward he threw his whole energies into clinical medicine and up to the time he was elected provost of the University of Pennsylvania, pursued his studies with energy and ability. His lecture room was crowded, and there was always a waiting list for his private course in physical diagnosis. In 1884 appeared the classic treatise *A System of Medicine*, which he edited, and in 1890 he gathered around him a number of associates who contributed to his last systematic work, *The Practice of Medicine*.

In 1870 events of great significance aroused in the late Dr. Pepper traits dormant because of the lack of opportunity to display them. The removal of the university to West Philadelphia and the recognition by Agnew, Pepper, Wood, Norris, and Tyson of the necessity for a hospital in the normal plan of a medical school called for new work. As chairman of the Building Committee, by his personality, his tact, and his force, he managed legislative bodies, laid the wealthy under tribute, and organized the alumni to potent work. In 1876 he was medical director of the Centennial Exposition, for the management of which he received a Knighthood from the King of Sweden. The cause of medical education

found in him a tireless champion. He reorganized entirely the University of Pennsylvania and established five new and most successful departments. He threw his whole soul into the university extension movement, was the first president of the local, and later of the national, society. He also was very active in a number of community efforts relating to museums and other societies. He became a vice-president and a leading spirit of the American Philosophical Society. He assisted in the organization of the Congress of Physicians and Surgeons. He was also one of the founders of the Association of American Physicians and later president of that distinguished body. He died July 18, 1898 of angina pectoris.⁸

In the afternoon at 2 o'clock the members and the ladies accompanying them, through the courtesy of Dr. C. F. McGahan, enjoyed a drive to Franconia and the Profile. After returning to Maplewood, the Association was convened at 8:30 p.m.

THE SIXTEENTH ANNUAL MEETING

The sixteenth annual meeting was held at the New York Academy of Medicine on May 9, 1899, under the presidency of Beverley Robinson⁹ of New York. A luncheon was served in the Academy between sessions and a smoker was held at Delmonico's, both tendered by the New York members. The Association dinner was served at the Hotel Manhattan. A trip was made to visit the Loomis Sanitarium at Liberty, New York, a special train being provided by the New York, Ontario, and Western Railroad.

President Robinson's address on "The High Aims of the Physician" tells us much about the state of medical science at this time and of his feelings about the qualities of a good physician. He quoted from Sir Dyce Duckworth's Harveian oration on "The Influence of Character and Right Judgment in Medicine," delivered before the Royal College of Physicians of London on October 18, 1898: "We are perhaps too much disposed to commemorate the scientific achievements of our great men, but let us not be unmindful of their characters. We know that genius is not always coincident with the highest moral or spiritual perfection, but when both these qualities are graciously combined in anyone we feel that we are in the presence of a truly great man—of one who becomes a personage and a power for good in his day and generation. In such a profession as ours we can never afford to lose sight of the preponderating influence of character in all who join our ranks and have to minister to every grade of our common humanity." In commenting on the recent scientific activity in the field of infectious diseases he said:

In many diseases of an infectious type the role played by bacteria, it seems to me, has been misinterpreted. They, in themselves, are not the causative agent of these

maladies, but are rather a frequent accompaniment of the septic process and may act as mere carriers of contagion. It is not difficult to understand, therefore, that when once the septic action is begun by the presence and influence of a poisonous principle of the contagious or infectious disease, such change may take place in the liquids and tissues of the body as to promote the rapid production and development of different forms of bacteria, with more or less characteristic features. . . .

It behooves us, in this as in other difficult or problematical subjects of medicine, to liberate ourselves from preconceived or too absolute theories which impede our progressive march in the path of exact knowledge. The following conclusions taken from the address of Charlton Bastian, in which he attempts to refute the too exclusive views of the upholders of the germ theory of zymotic diseases, contain even at the present day some wholesome truths: "1) The virus or contagium of some of these diseases, whatever it may be, does not exhibit the properties of living matter; 2) There is the extreme improbability of the supposition that this whole class of diseases should be caused by organisms known only by their effects; 3) The facts of the sudden cessation, periodical visitation, and many of the other phenomena of epidemics, however difficult they may be to explain upon any hypothesis seem to pose almost insuperable obstacles to the belief that living organisms are the causes of such epidemics of specific contagious diseases."^[10]

To Bastian's conclusions, promulgated 24 years ago, I would now add citations from the Huxley lecture on "Recent Advances in Science," by Professor Rudolph Virchow delivered last autumn in London on a memorable occasion. "Virchow writes:^[11] 'With the discovery of parasitic animals conjecture became fact, and nothing was easier than to generalize this fact and assume the presence of independent organisms in each contagious disease. . . . It may be said that the contagious nature of disease shows suspicions of bacterial origin but it should not be simply called that, although it allows the conscience to sleep. Some of the most important contagious diseases have succeeded in resisting the struggle to find in them a parasitic contagion. For example, many have been the sanguine hopes of finding the parasite of syphilis, and as many have been the failures; the coccus of gonorrhoea alone has been discovered, the bacterium of syphilis remains a desideratum. You will remember the certainty with which it was expected that a parasite was the causal agent of variola—more than one was found, but none pathogenic. In hydrophobia all appearance seemed to promise that it would prove to be a microparasitic disease. Its contagiousness is undoubted; the vaccine has been prepared and yet no one has been able to cultivate a specific bacillus. . . .'"

Thus, it was a heady scientific environment in which the members of the Association tried to make progress and to understand the new and important areas of science that were advancing at such a rapid pace.

In an interesting paper by S. G. Bonney, the early diagnosis of pulmonary tuberculosis was discussed. He pointed out that thousands of lives were being sacrificed annually because of mistaken or delayed diagnosis. Early diagnosis thus assumed a position in the general consideration of tuberculosis of vastly more practical importance than climatic change, general management, or prophylaxis. Recent investigations with the roentgen rays disclosed their utility for diagnostic purposes in thoracic disease, and due recognition was given to the diagnostic value of the tuberculin reaction. Neither of these, however, by reason of the necessary restrictions upon their employment were ordinarily within the

immediate reach of the general practitioner. Bonney went on to state that it is profitable to review the well-known and perhaps old-fashioned principles of diagnosis with the aid of the stethoscope and the thermometer, the careful and painstaking application of which are so frequently overlooked. Some of the errors that he pointed out were: 1) delay in instituting a physical examination until long after the development of pronounced symptoms; 2) failure to examine on the bare skin, the presence of clothing effectually preventing any approach to accurate results; and 3) neglect in examining the entire chest. He severely criticized failure to utilize cough preceding forced inspiration in eliciting the presence of slight moisture in the finer tubes, among other things. He did not, however, stress the presence of bacilli in the sputum, which Frederick I. Knight of Boston pointed out were in his experience almost uniformly present even in early cases. With its emphasis on the old methods of diagnosis, this paper reflects the transition period between the old and the new, which was dependent on x-ray and laboratory procedures just being instituted.

In the next paper Edward O. Otis made notes on the tuberculin test. He suggested that further evidence was needed to establish its exact position as a diagnostic method, but he felt that it was successful in the majority. Its rival, he pointed out, was the x-ray, but that required an expert and an expensive apparatus which at that time limited its use to the few.

A most important paper was "Roentgen Ray Examinations in Incipient Pulmonary Tuberculosis," by Francis H. Williams of Boston. Williams emphasized that the x-ray in many of his cases gave warning of tuberculosis before any departure from the normal was obtained by auscultation and percussion. He urged the adoption of this method to aid in the early diagnosis of pulmonary tuberculosis, since it gave the best opportunity of arresting the disease and teaching patients simple precautions that would prevent spread of the infection to others.

THE SEVENTEENTH ANNUAL MEETING

The seventeenth annual meeting of the Climatological was held at the Arlington Hotel in Washington, D.C. on May 1, 1900, in connection with the Fifth Congress of American Physicians and Surgeons. The widening scope of the Association in terms of membership and interest was evidenced by the presence in the chair of Dr. Abraham Jacobi,^{12,13} a distinguished pediatrician from New York whose Presidential Address was entitled "Functional and Organic Heart Murmurs in Infancy and in Childhood."

The son of one of the most revered members indicated his motivation to progress with the times when H. P. Loomis discussed "Some Personal

Observations on the Effect of Intrapleural Injection of Nitrogen Gas in Tuberculosis." This technique, which had been introduced by Murphy in this country a short time before, was gaining wide usage. In the discussion of Loomis's paper, Charles Denison of Denver noted that he had described before the Colorado State Medical Society about a year before a method of strapping the chest with adhesive plasters. The strips of plaster, one from the back and one from the front of the chest, were placed over the affected side of the thorax, crossing each other in the axillary region and then drawn tightly to the opposite shoulder where they were fastened to a collar. By this simple method he believed that the affected lung could be placed entirely at rest, doing away with the necessity of intrapleural injections. Most of the members in the discussion indicated that their limited experience with pneumothorax had been beneficial.

In a discussion of the value of the tuberculin test, J. M. Anders concluded that if the use of tuberculin as a therapeutic measure in tuberculosis was abandoned (since this rests upon a misconception of the nature of the agent), much of the opposition to its invaluable aid in the diagnosis of latent and incipient cases (notably the tuberculin test) would be removed. This paper excited a very extended discussion. Some had not given up the belief that tuberculin provided a treatment for the disease. Arnold Klebs pointed out that one of the difficulties was that there was no standard preparation of tuberculin so that results could be compared.

THE EIGHTEENTH ANNUAL MEETING

The eighteenth annual meeting was held in Niagara Falls on May 30, 1901, under the presidency of R. H. Babcock¹⁴ of Chicago who, in his Presidential Address, discussed "The Limitation of Drug Therapy." There were 39 papers published in the *Transactions* for this year, almost all of which dealt with some aspect of climatology or of tuberculosis. There was certainly no evidence in this program of a broadened interest on the part of the Association.

The minutes reported the death of one of the most distinguished of the honorary members, Dr. Alfred Stillé¹⁵ of Philadelphia, who died on September 24, 1900 in his 87th year. After graduation from the University of Pennsylvania in 1836, he served as resident physician in the Philadelphia and Pennsylvania hospitals, then went to Paris, with George C. Shattuck of Boston, where he came under the influence of the distinguished French clinician Louis. Stillé read a paper in 1832 in which he presented in tabular form the distinctions, clinical and anatomical, between typhus and typhoid fever.

At this meeting, the publication of the *Transactions* was turned over to Messrs. John Bale and Sons and Danielsson, Ltd. of London. Dr.

Septimus Sunderland, a corresponding member who was also an editor of the organ of the British Balneological and Climatological Association, arranged for its publishers to print all the papers of the *Transactions* and the *Journal of Balneology and Climatology* in one volume; the editors of the *Journal* would be allowed to utilize some of the *Transactions's* papers in their publication. The result was that 300 copies of the *Transactions* were secured at a cost of \$220. The preliminary matter was printed in Philadelphia by Mr. William J. Dornan and the volume illustrated, bound, and distributed for an additional expense of \$145, making a total cost of \$365. The secretary recommended a renewal of the plan for another year. What a great pleasure it would be for the current recorder to be able to make such economical arrangements.

Through Dr. Quimby the members were invited to visit the Niagara Falls Power Company's plant and to take the trip around the gorge as the guests of Mr. Rank, first vice-president of the company. This was done on Friday afternoon, it being decided to hold an evening session beginning at 8 o'clock.

THE NINETEENTH ANNUAL MEETING

The nineteenth annual meeting of the Climatological was held on June 9 and 10, 1902 in Los Angeles, California, under the presidency of Samuel A. Fisk¹⁶ of Denver, Colorado, who addressed the Association briefly on the various purposes of its existence. An interesting feature of this meeting was the tour that the members of the Association took on their way to the meeting in California. With the aid of the Atchison, Topeka, and Santa Fe Railroad, the Phoenix and Maricopa Railroad, and the Southern Pacific Company, an itinerary was arranged, the members traveling in a private car. Leaving Chicago on May 27, they had the pleasure of an interesting and instructive trip through Kansas, Colorado, New Mexico, Arizona, California, and Utah, and many returned via Oregon, Washington, Puget Sound, and the Dominion of Canada. As might have been expected from the presence of climatologists and a representative of the Weather Bureau from Washington, the Association encountered en route what was invariably termed "most unusual weather." Severe floods in western Kansas and eastern Colorado resulted in the destruction of several railroad bridges, enabling members to test during 40 hours of delay the tenacious qualities of Kansas mud and to become familiar with the habits of the prairie dogs and the flora and fauna of the plains. Kansas did not make a favorable impression on the party, either in the matter of soil or rainfall.

The program was filled with the usual plethora of papers on the climate and on tuberculosis. The most interesting, which brought the group back to a greater sense of reality, was the presentation of Henry Sewall (Fig.



FIG. 12. Henry Sewall

12) on "Altitude in Fact and Fancy." Sewall's scientific background made him one of the better-trained members. He had received his Ph.D. in physiology under Newell Martin at the Johns Hopkins University. From there he went to the University of Michigan as professor of physiology, where he remained until he contracted tuberculosis and moved to Denver. His major research contribution was his demonstration for the first time of the concept of specific antitoxins. Sewall pointed out that the clinician is forced to undertake the solution of some of the most complex problems in physiology and pathology while, at the same time, he is almost completely deprived of the most valuable aid to scientific investigation, that of experimental verification. It was not surprising to Sewall, therefore, that in the field of medical climatology the worker is particularly liable to be the victim of the errors to which all original investigators are subject. Chief among them may be inexactness of observations and the interpretation of facts by fancies that lead to some preconceived hypothesis or satisfy some personal desire. The physical data of meteorology

thus become the ornaments of generalizations rather than their foundation. He pointed out that possibly there occurred to each one there present illustrations of such errors of observation or of logic in climatology. Sewall went on to present a very intelligent and interesting analysis of the difficulties involved in interpreting the physical data and their influences on physiological function in man. After Sewall's careful review of the present knowledge of changes in physiological function with altitude, and their effect on cardiac and tubercular disease, the point that he was attempting to drive home promptly emerged in the discussion. Dr. Curtin agreed that cardio-tubercular cases do not generally improve at high altitudes, but he stated categorically—without any evidence—that this was due largely to the influence of altitude on the nervous system.

THE TWENTIETH ANNUAL MEETING

The twentieth annual meeting was held in Washington, D.C. on May 12, 1903, in conjunction with the Sixth Congress of Physicians and Surgeons. The meeting was under the presidency of Norman Bridge¹⁷ of Los Angeles, who commented that "we cannot let the good fellowship that belongs to so harmonious a society as ours betray us into dropping behind in the serious work of the organization. It seems to me that we are by the character of our compact under greater temptation to do this than any other of the societies of this congress of science." In looking at the program it is clear that this was happening.

There were no papers on any new and stimulating subjects. Science was beginning to be applied to the study and treatment of disease, but the Association was rather slow to respond. An example was the paper by Charles L. Minor, which offered the cyrtometer as a neglected instrument of pulmonary diagnosis and prognosis. Cyrtometry was simply the method of measuring the horizontal area of the chest by the combined use of a caliper for anterior-posterior diameter from the center of the sternum to the spine, and the use of a lead strip to outline the margins of the chest wall at the same level. The physician could then show that with improvement in the patient's condition, this area increased. Minor's approach seems retrogressive, since several papers on roentgenology of the chest had already been presented at previous meetings. The general caliber of the papers was indicated by that of J. Madison Taylor of Philadelphia on how to postpone the degenerative effects of old age: he recommended a sensible diet comprising mainly bread, milk and fruits, and he said that buttermilk was the best drink, after which came "koumyss" or "zoolak" (which he had known some elderly folk to subsist on almost entirely for years). The new science had obviously not intruded very significantly into the proceedings of the annual meetings of the Association at this stage.

Chapter 5

THE THIRD DECADE: 1904-1913

THE TWENTY-FIRST ANNUAL MEETING

The twenty-first annual meeting was held at the Aldine Hotel in Philadelphia, Pennsylvania on June 2, 1904, under the presidency of Dr. J. C. Wilson¹. Twenty-seven papers were read during the three-day session. On the second day, the meeting was at Houston Hall (University of Pennsylvania) and a dinner attended by 58 members was held the first evening at the Aldine Hotel. On the previous evening, the society was entertained by the Philadelphia members, who arranged a trolley trip to Willow Grove, where dinner was served and excellent music was enjoyed. The ladies accompanying the members shared in this delightful entertainment.

The content of the meetings, however, offered little that was new to stimulate the members to greater scientific activity. Dr. S. E. Solly of Colorado Springs brought up climatology as a subject for study in the medical schools; his paper promoted a vigorous discussion. Some felt that the topic could not be presented in only two or three lectures, the general tenor being that the medical curriculum was already overcrowded and that there was little reason to push for more extended consideration of climatology. The secretary, Guy Hinsdale, indicated that as provost of the University of Pennsylvania, William Pepper asked him to be the lecturer on medical climatology in what was known as the "spring course" or "auxiliary course" of medicine in the university. For a number of years, Hinsdale delivered ten lectures; the first three concerned general principles of meteorology and the balance was devoted to general considerations of climate with reference to health resorts in this country as well. These lectures were purely elective, but according to Hinsdale the course was very well attended.

The caliber of the other papers is exemplified by Thomas J. Mays's on "Human Slavery as a Prevention of Pulmonary Consumption." He pointed out that pulmonary consumption was comparatively unknown among the plantation slaves of the South before the war, while in the large cities of the South during that period it was no more prevalent than among whites. The period after the war, however, saw an enormous increase in consumption among the former slaves of the South. He attributed this to the social, economic, and political revolution that followed their freedom. No longer dependent on their owners for food, clothing, shelter, medical care, and nursing as they were in the days of slavery, they were thrown on their own resources and were forced into a struggle for existence that was as unequal as it was tragic. "They are

thus brought into the most intense competition for existence with the people whose civilization is thousands of years ahead of their own development." He pointed out that similar statistics were available for insanity and quoted Dr. T. O. Powell, superintendent of the Georgia Asylum for the Insane: "I am forced to believe that insanity and tuberculosis are first cousins, or at least closely allied. The sudden outburst of insanity among the colored race of the South came associated with tuberculosis, hand in hand, keeping pace one with the other." The programs of the Association at this period were clearly reaching a low ebb.

THE TWENTY-SECOND ANNUAL MEETING

The twenty-second annual meeting was held in Detroit, Michigan on June 28, 1905, under the presidency of W. F. R. Phillips² of Washington, D.C. Phillips, in his Presidential Address, discussed the definition of climatology, stating that the word "climate" is not used in medical literature with the rigorous exactness demanded by science. Climate had been studied very much as our predecessors studied drugs before the days of exact chemical analysis and of physiological experimentation. The present need of climatic therapeutics, he said, is not more clinical experience but more laboratory experience. In his view the Association should take steps to establish climatological laboratories; he recommended one at sea level and one in the elevated plateau of the Rockies.

The usual pattern of papers was presented, none being concerned with any novel fields of interest. Charles Denison of Denver presented, for the third time, his work on immobilization of one-half of the thorax, describing his complete scheme for preparing and applying traction plasters to arrest pulmonary hemorrhages, to relieve pleurisy, to contract lung excavations, and to adjust rib fractures.

THE TWENTY-THIRD ANNUAL MEETING

The twenty-third annual meeting was called to order by the president, Dr. E. L. Shurly^{3,4} of Detroit, at the Marlborough-Blenheim, Atlantic City, New Jersey on May 12, 1906. Less than a month before the meeting, the secretary received a letter from Dr. Philip King Brown of San Francisco saying that he would attend the meeting and be ready to read a paper. The following day an earthquake and fire destroyed the city. The secretary immediately wrote to express sympathy on behalf of the Association and to inquire as to Dr. Brown's safety. The following reply was received: "Thanks for your note of sympathy. I am sorry not to be with you, but we escaped only with clothes, food, and bedding, and I must remain and work. I lost my paper but saved my records and a few

of the charts of my heart cases. These I am sending with the rewritten paper to you, in care of the American Climatological Association, Atlantic City. Our laboratory went and with it a set of the Association reports. Many, many thanks about your offer to replace books. I would gladly pay freight charges on all the books I can get. Nearly every medical book in town was burned." Dr. Brown's paper, entitled "Artificial Nauheim Baths in Chronic Heart Cases," appears in the volume of the *Transactions* for that year.

The emphasis was still on climatology in various diseases, mainly tuberculosis. The president spoke as follows: "Still this glorious American Climatological Association has much yet to do in the development of climatologic science and art. Its career should not be restricted to any one or two diseases, but should include the clinical, climatic therapy and hygiene of every disease which may be affected by atmosphere, clouds, temperature, humidity, sun, and air effects, chemical and physiologic, as well as the land, the water, the fauna and flora of each district of our country."

There were no unusual or exciting papers on this program. H. P. Loomis made a flowery plea for the systematic study of climatology in medical schools, stating that it was "an essential part of the most liberal general medical education, and its practical importance is fully as great, if not more so, than the instruction given in a large number of technical courses." He then described the content of his lectures on this subject. He pointed out that "if this instruction is not given, how is the medical student when he becomes a practicing physician going to get it? I should say, generally, by learning from his mistakes. He will wake up sooner or later to the fact that his reputation has received a bad setback, when some patient returns home to die after he has sent him away to recover and has recommended some place which has turned out to have the very worst climatic conditions for that particular case." Among the papers there was an excellent description of St. Moritz, Engadine by Arnold C. Klebs and of the Irish Riviera by Charles E. Nammack.

At this time, the cold morning bath had a widespread and high reputation in this country as a wholesome measure for both the sick and the well. Those who shudder at the thought of such a venture on a cold morning will be reassured by reading the paper presented by Norman Bridge of Los Angeles, California, on "The Hot Morning Bath." He concluded that "the best morning bath, for both sick and well, is a hot one, taken preferably rather quickly, much as many Japanese people take their baths. Managed in this way, it does not cause cold-catching, but rather prevents it—indeed it is next to impossible for one to take cold from it. It is not merely comforting to take, it is positively delightful to most persons at any and all seasons of the year, and it starts one off to

his breakfast and the day's work with the buoyancy and dash of the best reaction from the cold bath." Climatology does have its benefits.

THE TWENTY-FOURTH ANNUAL MEETING

The twenty-fourth annual meeting was held at the Willard Hotel, Washington, D.C. on May 7, 1907, under the presidency of Dr. Thomas Darlington⁵ of New York.

Darlington, in his Presidential Address, emphasized the Association's drift toward specialization. The organization's tendency had been to focus upon pulmonary tuberculosis, but despite the worth and importance of that subject, there was much other work to be done. He emphasized a number of important problems particularly relating to other infectious diseases. The program served to emphasize his point and really did not contain any talks outside the general framework of what had been presented over the past several annual meetings.

Dr. Charles Denison said in discussion that there were nine members in attendance, all of whom had gone to Colorado for their health, although they would have a hard time explaining their trips, since they were now so well.⁶ "The personal experience of members of this Association is sufficiently ample to prove the value of climatic conditions." Unfortunately, as Sewall had emphasized, it was on such an anecdotal basis that most of the work on altitude rested.

By 1905 exposure times for x-rays had been reduced to the point where they were of practical value in the diagnosis of tuberculosis. The use of rest, emphasized by Trudeau and Lawrason Brown around 1900 and later by Charles L. Minor, Joseph H. Pratt and others, was gradually being accepted by physicians as more important than altitude.

THE FIRST QUARTER CENTURY ENDS

The twenty-fifth annual meeting of the American Climatological Association was called to order by the president, Dr. Thomas D. Coleman⁷ of Augusta, Georgia, at the Harvard Medical School on June 9, 1908 (Fig. 13).

President Coleman pointed out that it was most appropriate that this particular meeting was taking place in Boston, the site of much of the Association's early inspiration and much of its enduring work since its inception. "Harvard University has gathered her recruits and sent out her splendidly equipped armies to every portion of our common country, until, although located on New England soil, she is revered by all who love culture and erudition, whether they come from the north, south, east, or west." Coleman emphasized the same theme as the previous year's president: the need to look at the larger scope in which the

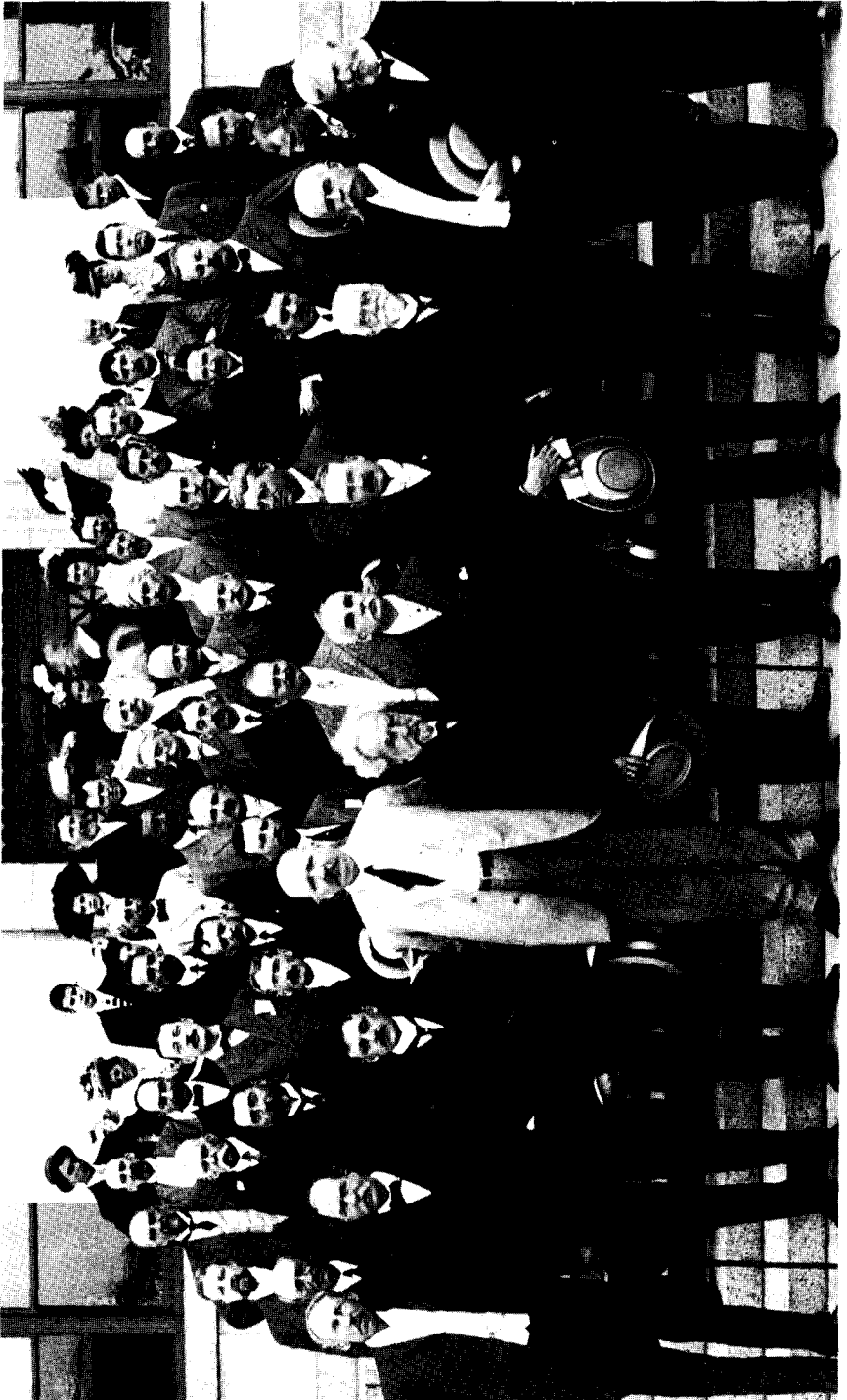




FIG. 13. Members of the American Climatological Association, Boston, Mass., June 1908 (Courtesy, The Francis A. Countway Library, Boston, Mass.). 1- E.O. Otis, 2- S.W. Langmaid, 3- S.A. Fisk, 4- T. Darlington, 5- W.F.R. Phillips, 6- A. Jacobi, 7- G. Hinsdale, 8- R. H. Babcock, 9- T.D. Coleman (President), 10- F.I. Knight, 11- V.Y. Bowditch, 12- R.G. Curtin, 13- W.S. Boardman, 14- R.A. Cleemann, 15- C.E. Edson, 16- C.F. Gardiner, 19- W.L. Dunn, 20- W.D. Robinson, 21- E.R. Baldwin, 22- H.D. Arnold, 25- M. Manges, 26- C.C. Ranson, 27- J. Daland, 28- J.H. Huddleston, 29- C.F. McGahan, 30- C.L. Minor, 33- A.K. Stone, 34- De L. Rochester, 35- L. Brown, 37- W.M. Gibson, 49- H.M. King, 51- H.L. Barnes, 54- J.A. Miller, 56- J. Perkins

Association should direct its energies and aims. The Climatological, in his view, had done more than any other organization to help eliminate tuberculosis, a disease which exacted as annual tribute more victims than all the other infectious diseases combined, pneumonia alone excepted. He did not feel that the purpose of the Association, "to study climatology, hydrology and disease of the respiratory and circulatory organs," was inadequate, and if it was broadly interpreted no change in these aims would have to be made. Coleman's was a harbinger of the increasing recognition that changes had to be made if the Association was to survive.

There was a series of papers on the Calmette and von Pirquet tuberculin tests for the diagnosis of tuberculosis, and on tuberculin for treatment. It was clear that problems with these two aspects of the use of tuberculin—for diagnosis as well as for treatment—had not been finally settled. Henry Lee Barnes, who had conducted extensive studies of the tuberculin test, thought it was necessary for the prompt diagnosis of many suspected cases of pulmonary tuberculosis and that all medical students should be thoroughly trained in the use of its various methods of application. James Alexander Miller, in his discussion of tuberculin as an adjunct to the home treatment of pulmonary tuberculosis, came to the conclusion that tuberculin is an active and useful aid in the treatment of the disease; while the use of tuberculin is not truly specific, it is probably a distinct step in the right direction. His group, therefore, was encouraged to continue its use in suitable cases until some better specific agent was available. These papers evoked considerable discussion, much of which was devoted to the dangers of the ophthalmic application of tuberculin as a diagnostic method. Miller did recognize that the majority of reports on the favorable effects of tuberculin in treatment had come from sanitariums and health resorts where the cases reported also received the usual hygienic dietetic treatment, and that the larger number of these cases had been in the early and more favorable stages. He also was aware that patients under such conditions usually do well without the use of tuberculin and that there was considerable skepticism as to the real value of its use. At this stage, however, there was little knowledge of how to set up an adequately controlled clinical trial.

At this meeting, it was noted that Dr. Henry Patterson Loomis,⁸ the son of Alfred Loomis, the first president of the Association, had died on December 22, 1907 of pneumonia. Graduating from Princeton University in 1880, he took his degree in medicine from the New York Medical School in 1883 and four years later was appointed visiting physician to Bellevue Hospital. For a number of years he was professor of pathology at the University of The City of New York. His demonstrations of pathology, supplementing the clinical teaching of his renowned father, were always of great interest to students. It was in the field of tuberculosis, however, that he sought and gained his highest honors, continuing

the work that had been dearest to his father's heart. In 1896 Loomis was made visiting physician to the New York Hospital, and upon the organization of the Cornell University Medical College in 1898 he was chosen to fill the chair of materia medica and therapeutics.

THE TWENTY-SIXTH ANNUAL MEETING

The twenty-sixth annual meeting was called to order by the President, Dr. Charles E. Quimby⁹ of New York, at the Chamberlain Hotel, Fortress Monroe, Virginia, June 4, 1909, at 10 a.m. The 25th year of the Climatological closed with a membership of 10 honorary members, 12 corresponding members, and 132 active members. Dr. Frederick Irving Knight, an original member of the Climatological and its president in 1891, died on January 20, 1909.¹⁰ The President gave an impassioned address on "The Element of Rationality in Medical Science." It is comforting to note physicians' concerns for their profession almost 80 years ago: "It is impossible for us not to recognize and folly for us to deny, that Medicine, using the term in its broadest meaning, is today in such a condition as to cause us the deepest humiliation and to justify the gravest anxiety for the future. This condition is manifest subjectively in every branch of our work, and objectively in a rapidly increasing loss of public confidence, which cannot be checked by hiding our heads in the sands of conceit. . . . And when such men as President Hadley, of Yale, speaking for the scientific public, cry, 'Give us physicians, not pathologists!' it implies a high degree of mental amaurosis not 'to see ourselves as others see us.'"

The scientific program was not outstanding in terms of any new or important contributions to knowledge. E. R. Baldwin discussed progress and changes in the treatment of tuberculosis during the past 20 years. F. M. Pottenger presented two new physical signs related to the detection of changes in the solid organs such as the heart, liver and lung. John B. Nichols discussed his views on the influence of meteorological and climatic conditions on metabolism. A study of the influence of climate upon suicide was presented by Roland G. Curtin and W. F. R. Phillips, followed by a paper on seasonal influence on suicide. Sanger Brown injected a bright note by his lecture on the "Fresh-Air Treatment of Acute Insanity." Dr. A. Jacobi's topic was "Variations in the Medicinal Therapy of Pneumonia in the Last Half-Century," and W. L. Dunn reviewed the dangers of the present tuberculin era.

The aftermath of a rather nondescript meeting was relieved somewhat by an amusing letter received by the secretary from Henry Lee Barnes, a member for only two years, commenting on this 26th annual meeting:¹¹

The boat which conveyed the members through Hampton Roads approached the landing in a downfall of rain, which allowed but scant view of the Hotel Chamberlain, one hundred yards away. It seems the irony of fate that men devoted to the treatment

of disease by open air methods should, when holding their scientific meetings, be inveigled into halls which cannot be properly ventilated. After the morning session had been held in an atmosphere whose temperature and closeness melted the collars and taxed the tempers and respiratory muscles of the audience, the President delicately hinted that a proposal for adjournment to the open-air pavilion would not be ruled out of order.

The first paper after reconvening in the pavilion was the "Climatology of the South"—a rather tender subject for this occasion—by Dr. McGahan, of Aiken. When he commenced his paper it was raining moderately but each succeeding reference to the amounts of "moisture," "precipitation," "rainfall," etc., seemed to provoke the heavens to respond by a greater downpour. Although the speaker raised his voice a little higher each time, in order to be heard above the increasing roar of falling water in the resounding roof, the noise finally prevented those who were more than six feet away from hearing anything but an occasional reference to "precipitation," and "rainfall" and the speaker, fairly vanquished by the storm, stopped his paper and joined the general laugh at his expense. The weather finally calmed sufficiently to finish the program, but the succession of thunder and lightning, torrents, sunshine, and rainbows was truly astonishing.

I am confident that no one who was present on this occasion will consider this description in the least overdrawn. A member, who is enthusiastic about the climate of his native Colorado, found that the precipitation of the day was 1.48 inch, or about $\frac{1}{8}$ of the annual rainfall in Denver. We had an unusually good meeting in spite of the climate.

THE TWENTY-SEVENTH ANNUAL MEETING

The twenty-seventh annual meeting was called to order by the President, Dr. Edward R. Baldwin¹² of Saranac Lake, New York, at the New Willard Hotel in Washington, D.C. on May 3, 1910, at 10 a.m. A point of discussion was the publication of the *Transactions*. For the past 10 years the Climatological had had a favorable arrangement with the *Journal of Balneology and Climatology*, by which many of the Association's papers had been republished and circulated in England and throughout the world. During the past year, the British Balneological and Climatological Society had become a Section of the Royal Society of Medicine and the *Journal* ceased to appear, inasmuch as the *Transactions of the Royal Society* included the papers read in all the Sections. After the secretary of the Climatological visited London and conferred with the publishers, it was believed that a favorable arrangement might be continued for publication abroad, as both the president and secretary of the Balneological and Climatological Society, Drs. Leonard Williams and Septimus Sunderland, were corresponding members of the Climatological.

In his Presidential Address, E. R. Baldwin discussed "The Organization of Health Resorts, with Especial Reference to Tuberculosis." He pointed out that for some years it had been customary for the president to devote some portion of his Address to the general subject of climate, and his grew out of the most common cause for the existence of health stations. There had been rapid changes in the popular attitude toward tuberculous

patients. Education of the public had brought as a logical consequence the fear of advanced invalids and of health seekers in general. What concerned him most was that while in many cities the agitation, lectures, and exhibitions had largely benefited the poor patients who could not leave home, the same efforts had tended to work more hardship for the self-supporting patients away from home. Fewer hotels and boarding houses were open to them; general hospitals refused them; and special tuberculosis hospitals had always been avoided by the very persons who most needed care. At that time the few institutions available did not fill one tenth of the need. The movement for state, county and municipal hospitals was steadily advancing, but there was no satisfactory method of caring for the people who wandered away from their home communities to take their chances for livelihood in mountain and desert regions.

The scientific program was concerned mainly with the effect of climate and its variations on tuberculosis: "The Effects of Heat and Cold in Pulmonary Tuberculosis," by Charles L. Minor; "The State of Maine as a Summer Health Resort," by Albert C. Getchell; "Tuberculous Peritonitis: A Plea for the Treatment of Peritoneal Tuberculosis by Hygienic Rather than Surgical Measures," by Arthur K. Stone; and "The Tuberculin Treatment of Pulmonary Tuberculosis in Office and Dispensary Practice," by James Alexander Miller. One interesting topic was "Angina Pectoris and Tobacco," by Judson Daland and W. Duffield Robinson; and another, "A Study of the Climatology of Cancer, with Notes on Its Cause and General Increase," by Roland G. Curtin.

THE TWENTY-EIGHTH ANNUAL MEETING

The twenty-eighth annual meeting was held under the presidency of John Winters Brannan¹³ of New York, at the Windsor Hotel in Montreal, beginning June 13, 1911. On June 12, the day before the annual meeting, the Association visited Saranac Lake and Lake Placid as the guests of the Saranac members. After breakfast at the St. Regis Hotel, the members visited Dr. Trudeau and the Saranac Laboratory adjoining his home. The party then visited the New York State Sanatorium at Ray Brook, two miles distant, and enjoyed a luncheon at the Lake Placid Club. Dr. H. M. Kinghorn served tea at his residence and the group boarded the private Pullman car that had been engaged to take the party from New York to Montreal. On June 15, the Association accepted the invitation of the Laurentian Sanatorium Association to attend the opening exercises of the new sanitarium for tuberculosis at St. Agathe des Monts.

In his Address, the president pointed out that Dr. Hinsdale's interesting paper on the recent floods in France (given at the 27th annual meeting) had led to an animated discussion on the influence of forests in regulating the flow of rivers. So divergent were the opinions expressed

that this year there was to be a symposium on the relation of forest growth to the increase or diminution of floods. A number of gentlemen were present from different sections of Canada and the United States to discuss the subject of forestry in all its bearings. The president went on to address certain aspects of the subject and found that there were, indeed, divergent opinions and that many questions remained unanswered. James M. Anders presented a paper on "The Climate and Hygienic Influences of Forest Growth."

Many other interesting subjects were discussed, including: "Some of the Rules for the Treatment of Consumption Laid Down by Sydenham and His Successors," by Richard Cole Newton; "The Class Method in the Home Treatment of Tuberculosis, and What It Has Accomplished," by Joseph H. Pratt; "Studies of the Leucocytes in Pulmonary Tuberculosis and Pneumonia," by James Alexander Miller and Margaret A. Reed; "Atypical Pneumonia," by Jay Perkins; "Artificial Pneumothorax as a Treatment of Pulmonary Tuberculosis," by Samuel Robinson and Cleaveland Floyd; and "Fresh Air in Schools and Hospitals," by John W. Brannan.

THE TWENTY-NINTH ANNUAL MEETING

The twenty-ninth annual meeting was held at the Allyn House in Hartford, Connecticut on June 18, 1912, with Alexander D. Blackader¹⁴ of Montreal as president.

This meeting was significant for the new members elected. Among these were individuals who had outstanding credentials as general internists as well as an interest in clinical investigation. Their election indicated a response to repeated suggestions that the society expand its interest beyond climatology and an emphasis on tuberculosis. Among the new members were Thomas W. Hastings of New York; A. W. Hewlett, professor of medicine at the University of Michigan; Warfield T. Longcope, who was associated with the Columbia University College of Physicians and Surgeons; George W. Norris of Philadelphia; and W. S. Thayer and Louis Hamman of Baltimore.

During this year the society lost two of its outstanding members from Philadelphia. John H. Musser¹⁵ was born in Strasbourg, Lancaster County, Pennsylvania on June 22, 1856. He graduated from the medical department of the University of Pennsylvania in 1877. From 1893 to 1898 Musser was a member of the Council of the Association of American Physicians. He had written with the late A. O. J. Kelly a three-volume treatise on practical treatment, and was president of the American Medical Association in 1903. During the summer preceding his death Musser visited William Osler, who was an old friend, and returned home with the verdict that he was to die within a few months and should

relinquish his work and try to relieve his distressing symptoms. Musser, however, continued full activity, saying nothing to family or friends of the prognosis Osler had given him. He carried out his professional duties until he could no longer fulfill them owing to lack of physical strength. Then he informed his intimates that the end was near. At the time of his death, Musser was connected with the medical staff of the University of Pennsylvania and was physician to the University, Philadelphia and Presbyterian hospitals.

Richard A. Cleemann¹⁶ was born in Philadelphia on February 22, 1840, graduating from the University of Pennsylvania in 1859 and receiving his M.D. degree in 1862. He immediately joined the Union Army for the remainder of the Civil War. He was active in the work of the American Philosophical Society and was its secretary for a number of years. Despite a very extensive private practice, he found time to contribute to many public enterprises and to write numerous papers on medical subjects. His reports on meteorology and epidemics in the *Transactions of the College of Physicians* were complete and attracted widespread attention.

President Blackader spoke on the advantage of residence in a cold, dry climate in the treatment of some forms of disease.

One of the most interesting papers was that of Professor Yandell Henderson of Yale (by invitation) on physiological observations on Pike's Peak, Colorado, made in the summer of 1911. In the 1870s Paul Bert had shown that at high altitude, the hemoglobin contained in the red blood cells was increased and that the ill effects of low barometric pressure were due to a lack of oxygen. Some experiments were carried out in steel cylinders from which the air was pumped, which demonstrated that in pure oxygen patients were as comfortable at one-fifth atmospheric pressure as when they were breathing the normal atmospheric air with one-fifth oxygen and four-fifths nitrogen. Recently Henderson had made further observations in New Haven. He acquired a large boiler, and breathed into it until the oxygen was greatly reduced. When it was below 10 percent he suffered from nystagmus, panting, and finally convulsions. There was no great difficulty, in his opinion, in making these studies on artificial "mountain sickness" at sea level. It was only a question of oxygen. A decrease in the amount of carbon dioxide in the lungs did not occur under low pressure.

While in Vienna, Henderson had met Haldane and Douglas. They made inquiries as to where they could find a comfortable mountain on which to conduct investigations and where they would not have to suffer many hardships. After considering the Andes and the Himalayas, they finally decided to go to Pike's Peak. The party consisted of J. S. Haldane and C. Gordon Douglas, both of Oxford; Professor E. C. Schneider of Colorado College; and Professor Henderson. After four or five days at Colorado Springs, they took the apparatus to Pike's Peak, where they

spent five weeks on the summit. They had equipment for determining the alveolar air content of the lung, as well as the respiratory exchange during exercise, the amplitude of respiration and so forth.

The problems they wished to study were those related to acclimatization, how people can live comfortably at these high altitudes. Of special interest were their measurements of blood volume: they found that subjects' red blood cells increased from five to seven million and hemoglobin from 100 percent to 145 percent or even higher after six months' residence at high altitudes. The most important element in acclimatization to low barometric pressure was the development by the lung of a capacity to secrete oxygen from the alveolar air into the blood, thus compensating in part for lessened diffusion because of the low oxygen pressure in the atmosphere. Their reports were presented first to the Royal Society of London on January 18, 1912 by Haldane. Henderson's paper was followed by another one of interest by W. A. Campbell on "High Altitude and the Blood." These two papers led to extensive discussion.

"The Negro and his Health Problems" was discussed by J. Madison Taylor of Philadelphia. In his view, the question for solution resolved itself into whether members of a tropical race, which had evolved through thousands of years in hot countries and whose characteristics had gradually become adapted to local climatic conditions, were capable of flourishing or even surviving in a climate wholly at variance with the circumstances of their racial adaptation. It was his view that two or more races brought into intimate contact socially and domestically evolved hybrids. All experience, he said, shows that hybrids, the product of sexual union of antithetic races, such as the white and the black, are physically and morally inferior to the original stock.

Two papers of interest to the medical historian were presented. Particularly entrancing was one entitled "Memorabilia" by Vincent Y. Bowditch, which contained extracts from medical notes made by his late father, Henry Ingersoll Bowditch of Boston. While looking over a series of manuscripts that Henry Bowditch prepared as a résumé of his life for his Harvard class report book, his son found several short articles that gave a personal touch to various medical subjects, including the elder Bowditch's description of his two years spent with Louis in Paris and the details of his introduction of thoracentesis for pleural collection of fluid.

Thomas A. Claytor discussed the more common forms of cardiac irregularity with the report of a case of heart block. The most interesting part of this lecture was the discussion by Joseph H. Pratt, who spoke as follows: "These tracings of Dr. Claytor interest me very much. I should like to know what apparatus he uses. I've had some experience with the

Jacquet instrument, but more with the ink-writing polygraph devised by Mackenzie. This was probably largely due to the fact that I learned from Dr. Mackenzie himself how to use his polygraph.

“During the summer semester of 1908 I made tracings of all the arrhythmias that came under observation in Krehl’s Heidelberg clinic. I sent the tracings to London, and Dr. Mackenzie kindly corrected my errors and gave me the benefit of his interpretation. So while the cases were yet in the wards, we had Mackenzie’s views on the diagnosis, and sometimes on the prognosis, based on the graphic records and Krehl’s opinion derived from the use of the older methods of examination.”

THE FIRST THREE DECADES

Thus, the American Climatological Association began its life at the start of a century of unparalleled advance in medical knowledge. By 1883, there was widespread interest among physicians in the United States in the treatment of tuberculosis. This group was also interested in disseminating information about health spas and in gathering data about climate and its effect on disease. A small group met in 1883 and organized the American Climatological Association, which held its first Annual Meeting in Washington in 1884.

The early scientific programs were dominated by voluminous discourses on the pathogenesis and treatment of tuberculosis, based on mainly theoretical concepts and supported by no sound scientific information. The leading otolaryngologists of the day were prominent among the members, as this specialty concerned itself more broadly with the respiratory tree than is the case today. The larynx, often the seat of the disease, could be visualized in contrast to the lungs in the pre-roentgen period.

William Osler was a member for one year—1886. This was the year the Association of American Physicians was organized. Although a number of other physicians belonged to both groups, it appears likely that Osler had a deeper interest in the broader approach to medicine embodied in the activities of the Association of American Physicians and decided to cast his lot with that organization, which he was actively involved in forming. The shape of the Climatological might have been quite different had he remained a member.

During the first decade, the Climatological met in various resorts and spas. One of its major functions was to seek out these resorts where the most favorable atmospheric conditions prevailed and to secure suitable accommodations for patients in those places. One of the highlights of the second decade was the first discussion at the 15th Annual Meeting in 1898 at Bethlehem, New Hampshire of the clinical uses of the “roentgen light” by an invited guest, F. H. Williams of Boston.

By the end of the second decade, the scientific programs had become rather sterile. Norman Bridge, the president in 1903, warned the Association that it could not let the good fellowship that belonged to so harmonious a society lull them into dropping so far behind in their more serious work. Bridge, who was also a member of the Association of American Physicians, had undoubtedly been impressed by the new era in medical science intensively displayed at the meetings of that group. Little was done to improve things, however, until Charles L. Minor became president in 1913.

Chapter 6

THE ADVANCE OF CLINICAL MEDICINE

THE FIRST CHANGE IN THE NAME OF THE ASSOCIATION

The constitution and by-laws adopted when the Association was organized contained the following: "Article I—Name. This society shall be known as the American Climatological Association. Article II—The object of this Association shall be the study of climatology and hydrology and of diseases of the respiratory and circulatory organs."

The name and the object as stated in the constitution remained intact for 30 years. The first large wave on the surface of this calm body of water was the Presidential Address of Charles L. Minor¹ (Fig. 14) of Asheville, North Carolina at the Thirtieth Annual Meeting in 1913. Minor pointed out that in the past three decenniums the advance of the art and science of medicine had been enormous, as great or greater and more momentous than in any similar period in medical history. Antisepsis and asepsis had revolutionized not only surgery but medicine as well. The whole brilliant hypothesis of immunity had been formulated, and from it had evolved serum and vaccine therapy, conferring inestimable blessings on suffering humanity. Laboratory diagnosis had assumed an importance that the leaders of the early days of the Association could not possibly have anticipated. The whole knowledge of tuberculosis had been recast, and the pessimism of the profession of 1884 as to its curability had been replaced by an intelligent optimism based on proven scientific facts.

Nothing, Minor pointed out, could better show the advance in the latter realm than perusal of the Presidential Address of Dr. A. L. Loomis in 1885. Loomis, who in his day was the leading authority on this disease, discussed whether phthisis had its origin as an infection, and remarked that:

There has never, perhaps, been a period when there was so great uncertainty in the minds of the profession in regard to the etiology and morbid anatomy of phthisis as at present. For one class of observers, pulmonary phthisis is an inflammation of the pulmonary substance which may or may not be complicated by tubercle. Another class maintain that the tubercle is the primary and essential lesion of all phthisis. Still more recently, certain investigators maintain that there is a specific material which may and may not be accompanied by the histological element of tubercle, but which always has a specific form of *bacillus* as the sole exciting cause of its development. . . . Koch's statements that the repeated entrance into healthy lungs of small numbers of the specific bacilli of tuberculosis will cause chronic phthisis, and that the simultaneous admission of numerous bacilli will produce acute cases, stand as yet unproved.

Minor went on: "And these were the words of a leader only 30 years



FIG. 14. Charles L. Minor

ago. When such changes occur in such short a time it is evident that only by constant growth and by adaptation to new conditions arising constantly, can medical men and medical societies hope to keep abreast of the times." Minor reminded the members that the study of tuberculosis had taken a large place in the work of the Association, and the future historian of the antituberculosis campaign in the United States could not ignore what had been done by the members of the Climatological. The Climatological was the first society to pay special attention to the subject. Valuable papers on climatic treatment, careful studies on the use of tuberculin, pioneer work on nomenclature and classification later taken up by the National Association, important papers on early diagnosis by x-ray and on pneumothorax, and many others strongly influencing the development of an interest in tuberculosis in this country could be found in the *Transactions*.

Minor then emphasized that the Climatological should not be chiefly

a society for the study of tuberculosis, as others had concluded in the past, even though its members had done so much excellent work in that area. It was natural and right that work on this single disease should be taken up by a special society. This group could include laymen as well as physicians in its ranks and could study the sociological, as well as the medical, aspects of the disease. It could collect funds and carry on a campaign of education throughout the country for which a medical society, pure and simple, has not the time. Such an organization could devote all of its attention to the one subject of tuberculosis. The Climatological, always taking a deep interest in the subject, should remain free to follow other subjects as well. He expressed satisfaction with the part that many of the Climatological members took in the founding of the National Association for the Study and Prevention of Tuberculosis, in which they were active and prominent from the start without losing "one whit of their interest in the parent society, as the Climatological Association may be named, for if we look over the list of officers and directors of the National Association we shall very quickly see that with justice we can be so-called [parents of the National Association]." Minor expressed admiration for the work on diseases of the lungs and heart presented before the Climatological, especially the studies on the physical diagnosis of those diseases; he believed that no society in this country had done more or better work on this subject. He stated that climatology had naturally received much attention, although he pointed out that in recent years interest in this subject had fallen off considerably, and the meetings had featured many more presentations on general subjects. Many reports on American climatic resorts had been presented before the Climatological; members of the Association had written the two best books in this country on "Climatology"; and efforts had been made to encourage the teaching of climatology in our medical schools. Numerous mineral springs had also been carefully studied, and much information collected about their qualities. In these various ways, therefore, by its membership, by its standing, and by its contributions to science, the Climatological had filled a valuable and important place in the medical annals of the country while it had also acquired the well-deserved reputation of being the most enjoyable, the most social, and the most closely united society in the United States.

It was his belief, however, that if the future is to justify the past, one could not let pride in the excellence of the Climatological make its members forget that it must have and does have its faults. He recalled that in the past, certain presidents, namely Jacobi, Babcock, and Bridge, had in their presidential addresses struck this note of warning and of advice. Jacobi, a very wise counsellor, said: "It is hardly necessary to point out or to emphasize the established policy of this Association to

admit only men whose positions have been established and who, through at least a few publications connected with our study have proved their right to apply." Babcock, in 1901, had said: "Let us not as an Association, however, devote our energies too exclusively to the climatology of consumption, ignoring the other natural means of cure and the treatment of diseased conditions." Bridge, in 1903, had commented as follows: "We cannot let the good fellowship which belongs to so harmonious a society as ours, betray us into dropping the serious work of the Association. It seems to me that we are, through the character of our contract, under greater temptations to do this than any others of the societies of this Congress of Science [the Congress of Physicians and Surgeons]."

Drs. Darlington, Coleman, and others had dwelt on the fact that the Association's name and its constitutional limitations restrict the society in letter, but should not restrict it in spirit; by implication they both urged that the scope of the organization's work be widened. Minor stressed that it was necessary to watch with all care the development of the society if one was to avoid getting into a rut or standing still instead of progressing. He believed that in the life of every organization, there come critical periods with good or ill according to whether they are wisely met or blindly neglected. It was his belief that such a period had arrived in the history of the Climatological and that it would be wise to consider what one could do to meet the fullest demands of the rushing and eager 20th century. He spoke as follows:

It was originally founded for the study of climatology, but even in the earlier Presidential Addresses it is evident that this seemed to be too narrow a field and diseases of the lungs and heart were soon added to it, and later hydrology.

But, gentlemen, times change and men change with them, and climatology, even with the powerful addition of diseases of the lungs and heart, no longer, I believe, offers a sufficient field for the activities of the society.

Climatology does not awaken much real interest in the minds of the large majority of active medical men today, and for several years now there has been a growing feeling among our members that if we are to continue to grow and prosper and not to be merely a charming club of good fellows, but an active, scientific association doing valuable work in medical progress, we must widen our borders, must let it be understood that climatology is not the chief center of our interest, must remove the restrictions set upon us by our name and by a clause in our constitution, and must feel ourselves free to study all subjects within the realm of clinical medicine. . . .

. . . The popularity of laboratory work has brought into the programs of many societies an excess of papers on purely laboratory topics of an extremely technical nature which, however important, are nevertheless of subordinate interest compared to those in the realm of practical internal medicine, and there is a distinct demand for more papers on clinical subjects, papers based on bedside observations; and while we all realize fully the importance of laboratory work and would not belittle it, we realize that the society which goes in for a large amount of this is apt to lose in practical medical interest.

There is, therefore, a very real demand for a society strictly clinical in its aims and scope and where all men interested in general clinical medicine, of which please

remember climatology is a part, though a very small part, can bring their problems for discussion.

He further stressed that it was necessary to attract the younger men into the organization who would be the distinguished clinicians of the next 15 or 20 years and who would feel it a privilege to join. He believed that the society must convince the outside world of the opportunity which it offered and he recommended modifying the name so that it would make plain to everyone that the Association embraced in the field of its studies what is spoken of as "clinical medicine" as distinguished from laboratory work.

Let us call our Association the American Climatological and Clinical Association, or, possibly better, the American Clinical and Climatological Association.

Next, let us amend our constitution so as to open our meetings to the discussion of all topics of general clinical medicine, especially the diseases of the lungs and heart, climatology, and hydrology.^[2]

Thirdly, let us be careful in admitting new members to our society. . . and not to consider only or chiefly their good fellowship or the friendly recommendation of some gentlemen, but let us consider more carefully than ever the work that they have done and are capable of doing and their promise for the future, so as to be sure that they will add not merely to the social charm of our Association, of which we are so proud, but much more to its intellectual distinction on which, after all, our reputation must be based. . . .

Minor's suggestions carried the day and the constitution was changed to specify the new name of the organization, The American Climatological and Clinical Association.

THE PROGRAM OF THE THIRTIETH ANNUAL MEETING

This thirtieth annual meeting, at which Minor presided, was held at the new Willard Hotel, Washington, D.C. on May 6,7, and 8, 1913. In 1913, some 8 years after introduction of the x-ray, papers were presented discussing in detail the discovery of abnormalities in the lungs by the methods of physical diagnosis. Henry Sewall's lecture, entitled "On the Auscultatory Determination of Early Pathological Changes in the Lung," was followed by George William Norris's discussion of the anatomic causes for the differences in the physical signs over the upper lobes of the lungs. It is clear that the x-rays still had not come into any general use. In the discussion, however, in addition to the general praise for the work of Norris and Landis and the beautiful anatomical studies that they had made, it was pointed out by W. H. Swann of Colorado Springs that several members of this society had failed to recognize clinically a large cavity easily visible in the x-ray. Even after seeing the cavity in the x-ray, these clinicians could find absolutely no physical signs.

There was great concern about the need for a universal system of

notation for recording physical findings in pulmonary disease, and at the Montreal meeting in 1911 a committee had been appointed to recommend some such system. At the 1913 meeting the committee pointed out that Drs. Sahli and John H. Musser, the latter a member of the Climatological, had published excellent schemes that had as yet not been generally adopted. They recommended that while such systems could be very useful to the men who made and used them systematically, at that time they did not appear to be practical. Accordingly, they recommended that the society should not try to introduce one. The committee was chaired by Charles L. Minor, and among the members were Lawrason Brown, J. H. Elliott, W. L. Dunn, J. H. Pratt, W. A. Griffin, and T. D. Coleman.

The other papers included one by Frank Taylor Fulton of Rhode Island on three cases of atrial flutter, which he had studied by means of the polygraph. Cleaveland Floyd of Boston discussed "Artificial Pneumothorax in the Treatment of Chronic Infections of the Pleura and Lungs," and Henry Lee Barnes and Frank Taylor Fulton discussed 17 cases of pulmonary tuberculosis, which they had treated by artificial pneumothorax. Barnes and Fulton were aided in their studies by Cleaveland Floyd, who had devised an apparatus for the institution of pneumothorax. In the discussion, several other members reported on their experiences with this type of treatment.

THE THIRTY-FIRST ANNUAL MEETING

At the thirty-first annual meeting, held in Atlantic City, N.J. in 1914, Dr. James M. Anders³ referred to Minor's address of the previous year, in which he described the growing feeling among the members in favor of widening the borders of the Association. Anders stated: "We must remove the restrictions set upon us by our name and by a clause in our constitution and must feel ourselves free to study all subjects within the realm of clinical medicine." In Anders's opinion, while enlarging the scope of the clinical subjects to be embraced, the Association should not lose sight of climatology and hydrotherapy and their near and remote connections with practical medicine. In his view, any medical society that combined within its scope an abstract science with clinical subjects had a clear advantage over one that confined its work and activities to clinical medicine alone. He urged adding to the membership an increasing number of medical and nonmedical men who had special knowledge of the subjects of climatology and hydrology. It was his earnest hope that they should not be forced to make the humiliating admission that the principal motive of the society was failing to be fulfilled.

Thus, not all the important members of the Association at that time saw the need to make sweeping changes if the organization was to survive. Again at this meeting, the major portion of the sessions was devoted to

discussions relating to tuberculosis. Richard Cole Newton gave a sketch of the origin of auscultation and percussion and of the state of clinical medicine in the time of Auenbrugger and Laennec.

THE THIRTY-SECOND ANNUAL MEETING

Henry Sewall⁴ was president at the thirty-second annual meeting, held in San Francisco, June 18–20, 1915. In his Presidential Address, Sewall asked:

What must be the present attitude of our Society to best ensure its future development? Since our field of work is practically boundless, we only have to deal with the qualifications of the workers and characterize the expedient limitations of their energies. It is a happy tradition of this Society that the personality of its members making possible more than cordial, even affectionate, intercourse should be a dominant criterion of fitness in those who would join its ranks. Russell Lowell once said that no long friendship is possible with one from whom we cease to learn.

It is the ideal of happy social intercourse to combine the emotion of fine desire with a sense of intellectual uplift. No more difficult goal could be set up. Herbert Spencer in his autobiography tells of the attempt to bring together in the "X Club" ten men in London who should combine the qualities in question. They never succeeded in enrolling more than nine; but what a table was that round which were gathered Huxley, Tyndall, Hooker, Spencer!

Far be it from me to undervalue the living word and the magnetism of personal contact. But the essence of our civilization consists in the employment of methods by which the influence of the individual is radiated far beyond the bounds of his personal activity. . . .

In conclusion, it appears that the field of endeavor occupied by the American Climatological and Clinical Association is of enormous expanse. No other organization exists which is likely to duplicate the tasks which are properly ours. I am convinced that a scientific society, like a living body, is greatly endangered by redundant, inactive tissue. I believe it would be to the best interests of the Association were its public opinion to insist that every member should be and continue to be a producer for the general welfare. . . . The main thought is that our success depends upon the active cooperation of every member; granting this result, none can doubt the maintenance of the high traditions of this Society, nor that it will continue as a noble monument to the achievements of American Medicine.

The scientific program contained no outstanding contributions, but the group made a visit to a sanitarium for the treatment of tuberculous patients, still the major interest of many of the Association's members.⁵

THE THIRTY-THIRD ANNUAL MEETING

President James Alexander Miller,^{6,7} at the annual meeting in Washington, D.C., May 9–11, 1916, gave an excellent discussion of the physiological effects of various atmospheric conditions. He had expert knowledge in this field, having been for three years a member of the New York State Commission on Ventilation. Perhaps the most interesting presentation, and the one that excited the most discussion, was that of H. R.

M. Landis of Philadelphia on the role played by the study of tuberculosis in the development of clinical medicine. He reviewed the important contributions of Auenbrugger and Laennec. But most important, he called attention to the contribution of one of the original members of the Climatological:

It is to the great glory of American medicine that in Austin Flint [1812-1886]^[8] she has one who was no unworthy associate of the men whose work I have briefly reviewed. Of him Sir William Osler has written: "By far the ablest and most scientific of American students of the disease (tuberculosis) was Austin Flint, whose contributions to the physical signs and the symptoms were among the most important of his clinical studies." [Osler: Tuberculosis, ed. by Klebs, 1909] He was entirely American, and owed nothing to a foreign training. He "found his opportunities in country practice, in Buffalo and Louisville, then frontier towns, and in New Orleans, and had a national reputation before he reached New York. . . ." Early in his professional career he began his observations on tuberculosis which continued throughout his life [He had notes on over 670 cases of the disease gathered over a period of 34 years.] . . . To Austin Flint belongs the distinction of making the only addition to Laennec's work which could ill be dispensed with. I refer to his contribution on pitch in percussion and auscultation, a point to which Laennec paid no attention. [Flint's] observations were embodied in an essay entitled "Variations of Pitch in Percussion and Respiratory Sounds, and Their Application to Physical Diagnosis," which was awarded the annual prize of the American Medical Association in 1852. . . . Shortly after his death, one of his most distinguished contemporaries, J. M. Da Costa, said of him: "With, perhaps the single exception of Rush, there is no man who, in his many-sided capacities of teacher, author, and investigator, has had thus far as much influence on the medicine in this country as Austin Flint."

Judson Daland, in a discussion of the roentgen ray in the diagnosis of thoracic diseases, pointed out that whenever phthisis is suspected or when the physical signs and clinical evidence are doubtful, a roentgen examination is absolutely necessary. Although pulmonary phthisis is often easily diagnosed by clinical methods, the roentgen ray so frequently reveals new or unexpected conditions that in the future no case will be considered to have been thoroughly and completely examined without a roentgen examination. The discussion revealed, however, that not all of the members had reached such a definite conclusion about this method of examination. There were still those who believed that the roentgen ray was necessary only in making certain borderline differentiations.

THE THIRTY-FOURTH ANNUAL MEETING

The thirty-fourth annual meeting came to order on May 29, 1917, in Lakewood, New Jersey under the presidency of Judson Daland.⁹ The secretary-treasurer's report pointed out that various members of the Association were contributing greatly to the war effort:

Among our members who are serving in the medical corps of the Canadian army are Dr. J. Roddick Byers, a captain, and Dr. J. H. Elliott, a captain, while another Canadian, Captain George D. Porter, is a candidate for election.

Our honorary member, Surgeon-General Gorgas, is directing the medical corps of our army with his well-known ability. Another honorary member, Dr. E. L. Gros, for years well known in Paris with an important service in the American Hospital, is in charge of the selection of men for the aviation corps. Dr. George C. Shattuck who did so much work in Serbia with Dr. Strong, of Harvard, has returned to the work in France with the Harvard Unit. Dr., now Major, Roger Lee has gone with the Peter Bent Brigham Hospital Unit. He is chief of the Medical Section U.S.A., Army Base Hospital No. 5. Several of our members are in the Medical Reserve Corps, among them our president, who holds a commission in the Navy and an ex-president, Dr. Anders, a captain in the Army. Others in the service include: Dr. Horace D. Arnold, a major on active duty at the headquarters of the Northeastern Department of the Army in Boston; Dr. George W. Norris, who sailed for France, as Major in the Pennsylvania Hospital Unit; Dr. W. G. Schaffler, who is on active duty as Surgeon-General of the New Jersey National Guard. Lieut.-Col. George E. Bushnell is on duty at the Surgeon-General's Office in Washington. Others in the reserve corps of the Army include: Dr. J. A. Miller, Dr. P. K. Brown and Dr. J. C. Wilson. Major J. H. Pratt, Major Linsly Williams, Major E. H. Goodman, National Guard, Pa., Major J. N. Hall, Major T. D. Coleman, Major W. A. Jayne, Major T. W. Hastings. Contract Surgeons: Drs. Otis, Claytor, Cleaveland Floyd, J. Gurney Taylor and Willard J. Stone, Charles M. Montgomery, H. R. M. Landis. Dr. George Morris Piersol, a candidate for election, is in the Officers' Training Camp at Fort Oglethorpe. . . .

The war has also had the effect of delaying the appearance of the *Transactions*.

Despite the war, an interesting scientific program was presented. One of its main features was a symposium on focal sepsis, a topic of great interest at that time. It consisted of five presentations: "Diagnosis of Focal Sepsis," by James M. Anders; "Focal Sepsis as a Cause of Diseases of the Joints and of the Genito-Urinary System," by DeLancey Rochester; "Focal Sepsis as a Cause of Diseases of the Respiratory and Gastro-Intestinal Systems," by Charles C. Browning; "Focal Infections as a Cause of Cardiovascular Disease," by Robert H. Babcock; and "Reflex Disturbances Due to the Faulty Development of the Teeth," by J. Madison Taylor. George E. Pfahler and Morris Manges discussed x-ray diagnosis in diseases of the chest. Other topics were the treatment of ambulatory cases of tuberculosis with tuberculin, by Richard Cole Newton, and "Blood Letting," by W. D. Robinson. No Presidential Address was published.

THE THIRTY-FIFTH ANNUAL MEETING

The thirty-fifth annual session was called to order at the Boston Medical Library on June 5, 1918, with the president, Capt. Jabez H. Elliott,¹⁰ A. M. C. (see Fig. 15) in the chair. The opening paper was by Professor Robert deCourcy Ward of Harvard University, who spoke on "The Larger Controls of the Climates of the United States." Again, no address was given by the president. The war continued, but there was again an interesting scientific program. W. F. R. Phillips discussed patent foramen ovale and its relation to certain cardiac murmurs, and John L. Heffron addressed the group on the significance of early heart lesions.

“Five Years Experience with Artificial Pneumothorax” was the topic presented by C. D. Parfitt and D. W. Crombie. There were two papers on tuberculin. Richard Cole Newton analyzed 50 cases of tuberculosis, mainly caseous and glandular, treated with tuberculin contrasted with fifty cases treated without tuberculin; and Robert C. Patterson presented his studies on granular tuberculous conjunctivitis treated by installations of tuberculin. Several papers also dealt with problems of cardiac and pulmonary disease in Army recruits. This volume of the *Transactions* contains a short bibliography of United States Climatology compiled by Robert deC. Ward. After 23 years, Guy Hinsdale ended his tenure as secretary-treasurer, and he was succeeded by Arthur Kingsbury Stone.

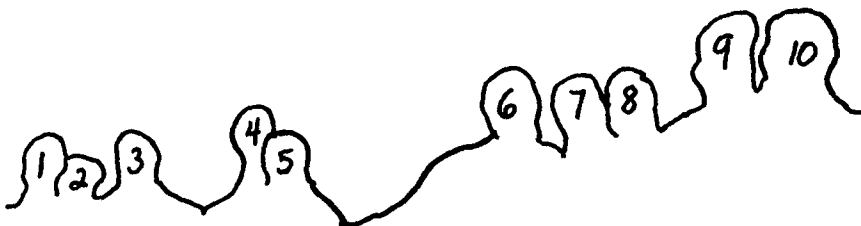
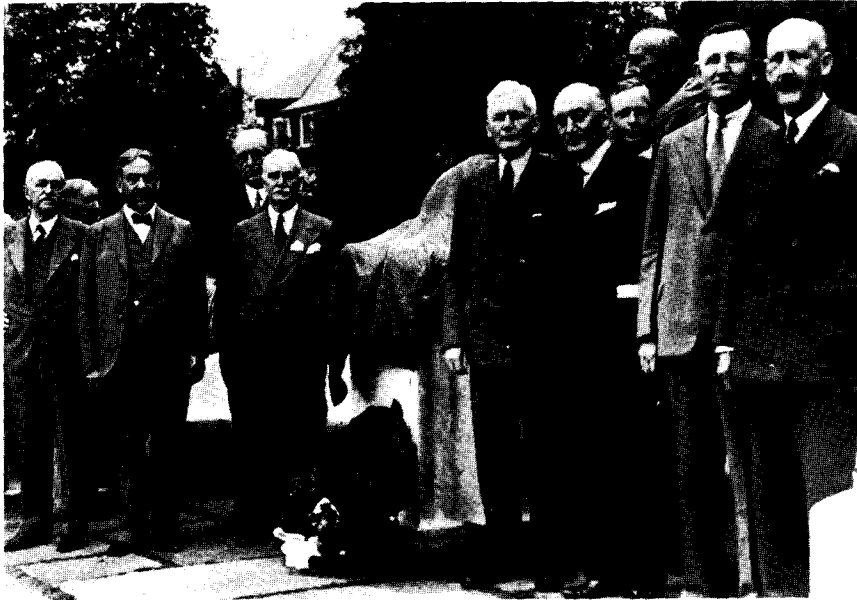


FIG. 15. A group at the E.L. Trudeau monument (Courtesy of Dr. John R. Graham). 3- Jabez H. Elliott, 6- Charles D. Parfitt, 7- Edward W. Archibald, 9- Hugh A. Farris

THE THIRTY-SIXTH ANNUAL MEETING

The thirty-sixth annual session was held at Atlantic City from June 14 to 17, 1919, with Guy Hinsdale¹¹ presiding. After calling the Council meeting together, the president made these brief remarks:

... We find ourselves once more together renewing, I am sure, our devotion to the fraternal spirit that has bound us together for all these years. There are now only three living members of the group that founded the society. Dr. Tyndale, who took the most active part in its inception, is living but at such a distance we never see him. Our other original members, Dr. Beverley Robinson and Dr. James C. Wilson, still honor us at times with their presence and active interest.

I myself can count 25 years of active membership. With you I look back on such delightful companions as dear old Dr. Curtin, Dr. Walker, Dr. Knight and Dr. Solly, not to mention those who have gathered round the Council board in recent years.

Some of us are now back from camp and the army hospitals and we are proud of the fine record each has made. We shall hear later something about the work they have done and the lessons they have learned in the military and naval service of the United States and their allies. Some have won distinction in the service of the Red Cross and in the Rockefeller Commission for the Study and Prevention of Tuberculosis and are even now detained by duties of the most important character.

Hinsdale, in his Presidential Address, spoke learnedly about "The Sun, Health and Heliotherapy." He first called attention to the fact that the seal of the Association represents the sun with rays in all directions. Motto, "Fiat Lux." In concluding, he strongly urged the establishment of a true sun cure in the Rocky Mountain region, preferably Colorado, New Mexico, Arizona and California. Among the places where heliotherapy has been attempted on this side of the Atlantic, he noted that there is a wide difference in the amount and quality of sunshine, the *sine qua non* of successful treatment; nevertheless it has been carried out in such diverse climates as those found at Sea Breeze Hospital, Long Island; Narragansett Bay, Rhode Island; Perryburg, 40 miles from Buffalo; and Toronto, Canada. Success has attended the efforts of members of this Association stationed in Colorado and southern California, where the hours of sunshine are most uniform and least liable to interrupt the cure.

Many of the papers dealt with war experiences, such as: "The Army Tuberculosis Problem as Seen in Massachusetts," by John B. Hawes, II; "The Treatment of Tuberculosis in Returned Canadian Troops," by J. Roddick Byers; "Observations on the Epidemic of Influenza Occurring in U.S. Naval Hospitals in Philadelphia in 1918," by Judson Daland; "Some Lessons of the War in Pulmonary Tuberculosis," by Gerald B. Webb; "Medical Work as Seen in Certain Spheres in the Office of the Surgeon General," by C. W. Richardson; "Medical Work in the British Armies in France," by George Cheever Shattuck; and "Internal Medicine as Observed at a Base Hospital in France," by George Morris Piersol.

Other presentations of interest included: "A Tuberculosis School for Patients and Observation Hospital," by Joseph H. Pratt; "Early Records of Influenza Epidemics in America," by Guy Hinsdale; and "Treatment of Influenza and its Pulmonary Complications," by James M. Anders.

THE THIRTY-SEVENTH ANNUAL MEETING

The thirty-seventh annual meeting was held in Philadelphia, June 17-18, 1920, with Lawrason Brown¹² in the chair. The president gave an address entitled "The Need of More Active Membership and Accuracy in Presentation of Clinical Material," which was heartedly endorsed by all present! He drew the following conclusions: "1) Our fitness alone renders our observations of value. By fitness I mean honesty, carefulness, and willingness to record our observations no matter how many cherished theories they overthrow. 2) A few carefully observed and recorded cases greatly outweigh a large number of cases stored in a memory, however tenacious. 3) Personal experience should be based upon carefully studied statistics of personal observation and not upon personal impressions, which cover often all lack of recorded observation and avail only in my opinion for diagnosis. 4) Finally we should not use the phrase 'personal experience' as a cloak to cover our ignorance of our real personal experience."

On Thursday, June 17, the members of the Association were entertained at luncheon as the guests of Dr. James M. Anders at the Phipps Institute, and an informal dinner was given by the Philadelphia members. On Friday the members were the guests of Dr. Judson Daland at the Union League Club; following the afternoon session all the members journeyed to the White Marsh Country Club where dinner was served out-of-doors. Dr. Robinson brought as guests the Kelley Street Music Club, and both soloists and chorus were keenly appreciated. Professor Watts addressed the Society on "Bolshevism in Art and Literature," and Dr. Wilmur Krusen (formerly health officer of Pennsylvania) spoke.

Eight of the seventeen papers on the scientific program dealt with one or another aspect of tuberculosis. However, topics of interest to the general internist were becoming evident: "Clinical Studies in Functional Disturbances," by Nelson G. Russell, John A. P. Millet, and Byron D. Bowen; "Prognosis in Vascular Hypertension," by G. M. Piersol; "Acute Epidemic Encephalitis," by Charles H. Miner and S. L. Freeman; and "Endocrine Glands," by W. D. Robinson.

THE THIRTY-EIGHTH ANNUAL MEETING

The thirty-eighth annual meeting was held at the Hotel Curtis, Lenox, Massachusetts on June 3, 1921, under the presidency of Carroll Everett

Edson¹³ of Denver, Colorado. Fifty-nine members were present, including two Emeritus members, and 14 brought their wives. President Edson pointed out in his address that during the past 37 years most of the contributions of permanent scientific value in climatology and balneology in this country had been published in the *Transactions* or by members of this Association. The papers and discussions first emphasized the benefits of climate in pulmonary tuberculosis and then established by analysis the essential importance of fresh air and medical discipline in its cure. With scientific breadth of view, members of this Association were prompt to recognize the need for wider, special and more intensive study of tuberculosis. From its inception, they were active in the organization and generous in support of its scientific and sociological work. He emphasized that inasmuch as diseases of the respiratory system were those most apparently helped by change in climate, and for which patients were most often sent away from home, the discussion of these diseases occupied a large part of the early programs of the Association. They were not, however, the sole or even the chief topics at some of the meetings, as shown by Dr. R. G. Curtin's analysis, in his Presidential Address of 1893, of the papers presented in the first ten years of the Association (Table 1). Edson went on to show that this broad and catholic range of subjects had been maintained in succeeding decades. The newer knowledge of the endocrine organs, and the special studies on tuberculin and bacterins, accounted for the larger number of papers grouped under "Miscellaneous" (Table 2).

These papers reveal clearly that the work of the Association has had a clinical bearing and a therapeutic interest. The members, Edson said, desired more scientific, more accurate knowledge of the effect of climate upon the human body. They selected the circulatory and respiratory systems for special study because diseases of these physiological groups were most obviously influenced by climatic surroundings, and showed a

TABLE 1
Subjects of Papers Presented in the First Decade of the Association

	1884-1893
Pulmonary phthisis and diseases of the air passages	60
Pneumonia and pleurisy	6
Asthma	4
Diseases of the heart	15
Epidemic diseases	18
Mineral springs and baths	12
Experiments as to the effects of air pressure on diseases of the heart and lungs	9
Studies of special climates	62

TABLE 2

Subjects of Papers Presented in the Second, Third and Fourth Decades of the Association

	1894-1903	1904-1913	1913-1918
Pulmonary tuberculosis	76	57	31
Pneumonia	27	31	20
Diseases of the heart	37	36	11
Diseases of the kidneys	1	4	1
Epidemic diseases	7	3	7
Mineral springs and baths	7	7	2
Studies of special climates	36	20	4
Meteorologic physiology	20	7	7
Miscellaneous	19	66	34

response to meteorologic conditions that could be measured by the few means then at their command or studied by clinical observation—for they knew the value of clinical study and the value of accurate observation. But in addition, they recognized their need for more detailed information concerning the climatic conditions present at the various health resorts. Having always in mind the application of such statistics to the benefit of their patients, they also wanted to know about the living conditions of the places to which they might send their patients. Their clinical wisdom taught them that man was not cured by air or waters alone, and that the patient's mental, moral and social nature must be considered. To this end they wisely established the custom of meeting in regular alternation at various health resorts, so that they might see for themselves the physical, social and recreational opportunities of these localities, and the character and qualifications of the medical service their patients could command.

Edson's address included a discussion of the paramount importance of aviation in war and its growing usefulness in commerce; the emergence of aviation necessitated an intensive study of the physiologic effects of high altitude little dreamed of ten years before. The extent of studies already made in this field was hardly appreciated by the medical profession, though many of the experiences and facts brought out by the school of aviation physiology could be usefully applied to the problems of more humble terrestrial medicine. Never was the time more suited or the call more imperative, in Edson's opinion, for the establishment of laboratories for clinical research in meteorologic physiology—which is the foundation for scientific climate therapy. It seemed to him a most opportune time for action, as the American Meteorological Society had come into prominence, even though it had been organized only 18 months previously. Edson urged cooperation with this newly formed Society. Professor Ward, its president, had been made an honorary member of the Climatological

and had addressed the Association at its previous meeting. Later, when Edson and Hinsdale became officers of the American Meteorological Society, it was decided that they should present to the Council and through it to the Society suggestions for developing methods of medical climatology through collaboration with the Climatological.

The scientific program consisted of 22 papers on a variety of subjects, but it still focused almost exclusively on tuberculosis, and various diseases of the lungs and circulatory system. Outstanding were presentations on: "The Cause and the Control of Dyspnea in Disease of the Lungs," by G. W. Norris; "The Prevailing Beliefs about Infection in Tuberculosis," by E. R. Baldwin; "An Analysis of 90 Cases of Functional Disease in Soldiers," by John M. Swann; "The Occurrence of Physical Signs Suggestive of Aortic Defects," by Frank A. Craig; and "The Lyon Method of Draining the Biliary System for Diagnosis and Treatment," by Francis J. Dever.

Among the most distinguished members of the Climatological was General William C. Gorgas,¹⁴ born in Alabama on October 3, 1854. He was the son of General Josiah Gorgas, the chief of ordnance of the Southern Confederacy and after the Civil War the president of the University of the South, from which young Gorgas graduated with the degree of A.B. in 1875. He then entered the Bellevue Hospital Medical College, from which he received his M.D. in 1879. The following year he joined the medical department of the Army as a first lieutenant, became captain in 1885 and major in 1898. In early life Gorgas had had yellow fever, a disease that was rightly dreaded in those days. He was the only one immune among the officers of the medical department, with the exception of Surgeon-General Sternberg, so that he was the first one to be considered for duty that involved exposure to that disease. Having accompanied the expedition against Santiago, he was soon appointed chief sanitary officer of Havana, an office he held from 1898 to 1902.

Walter Reed, at that time a major in the medical department, was first sent by General Sternberg to Cuba to study yellow fever in 1900 and in June of that year was appointed president of the Board of which Carroll, Agramonte and Lazear were the other members. Gorgas cooperated with the Board and made valuable suggestions to Reed, but his other duties forbade active participation in the researches that resulted in the memorable discovery of the mode of infection in yellow fever and of the proper means of exterminating that disease. Applying in February 1901 the practical methods for destroying the *Stegomyia* that the Board had worked out, Gorgas succeeded in eradicating yellow fever from Havana, where it had been constantly present for 150 years. He thus demonstrated for the first time on a large scale the enormous value of Reed's discovery.

The untimely death of Walter Reed in 1902 left Gorgas as the major authority on the prophylaxis of yellow fever. He was, therefore, selected to undertake the eradication of the disease from the Isthmus of Panama, becoming chief sanitary officer of the Canal Zone in 1904 and a member of the Canal Commission in 1907. His success in Panama is well known. In Great Britain, such services to the world, of which the financial value alone is beyond computation, would undoubtedly have been rewarded by a peerage. Gorgas's only immediate reward was his promotion in 1903 by Special Act of Congress from the rank of major to that of colonel and assistant surgeon-general. Gorgas remained in charge of the sanitation of the Isthmus until the winter of 1913, when he went to Rhodesia, South Africa at the invitation of the Chamber of Mines of Johannesburg to advise them on the prevention of pneumonia and malaria among the native miners. He was appointed Surgeon-General of the Army with the rank of Brigadier on January 16, 1914 and was given the rank of Major General in 1915. In 1916 he was made chief of the special Yellow Fever Commission of the Rockefeller Foundation and spent several months in South America making preliminary surveys of localities in which yellow fever prevailed. In November 1918 he became director of the yellow fever work of the International Health Board of the Rockefeller Foundation and was free to carry out the recommendations previously made by the Yellow Fever Commission. He immediately set out upon a preliminary journey to Central America on April 3, 1920. He sailed for England en route to West Africa, where he proposed to investigate the yellow fever situation. However, he fell ill soon after arriving in Europe and died in London on July 4, 1920. Sir William Osler characterized the reception in England on Gorgas's visit in 1912 as the greatest ovation ever given to a medical man in that country.

THE THIRTY-NINTH ANNUAL MEETING

The thirty-ninth annual meeting was held in Washington, D.C. on May 2, 1922. In his Presidential Address, William Duffield Robinson¹⁵ paid tribute to the fact that the most precious possession of the Climatological was those members who took a deep interest in the organization. Three of the original members were still present: J. Hilgard Tyndale, James C. Wilson, and Beverley Robinson. The president also mentioned the names of others who had been members for 25 years or more, and the list was long.

The Climatological program in this year was in many ways ahead of its time. Besides those related to climatology, the meeting included papers that were forerunners of the present-day interest in the environment. Yandell Henderson presented a discussion of automobile exhaust gas as a health hazard. Studies of carbon monoxide were underway in Hender-

son's Laboratory of Applied Physiology at Yale, as this was thought to be the principal toxic constituent in exhaust gas. This concern arose principally in conjunction with the construction of long vehicular tunnels. There was also an interesting note by Allen K. Krause on the practice of artificial pneumothorax by the Hippocratic school.

THE FORTIETH ANNUAL MEETING

The fortieth annual meeting was held at the Clifton House, Niagara Falls, on May 23 and 24, 1923 with Charles W. Richardson¹⁶ presiding. This meeting was the 30th anniversary of Robert H. Babcock's¹⁷ election and Dr. Darlington presented him with a beautiful gold-headed cane.

At the time of the annual dinner, Mrs. Richardson, the wife of the president, entertained the ladies of the party at a separate dinner, and later they joined the men to listen to the speakers. The Glee Club sang with vigor, and after they had sung for the ladies' party, Mrs. William LeRoy Dunn, the wife of another member, in turn sang for the Association. Early Friday morning, one group went to visit the diabetes clinic of Drs. Banting and Best in Toronto, while another visited Perrysburg to see Dr. Lo Grasso's heliotherapy work. This program was also marked by the first presentation of cases of diabetes treated with insulin. John A. Lichty described his personal experience, giving the details of four cases. He discussed the history of the treatment of diabetes and concluded that insulin had brought a new era in the management of this disease. In the discussion others described their early experiences with Iletin.

A most interesting paper was presented by James Alexander Miller and Adrian V. S. Lambert of New York City on abscess of the lung, discussing the great opportunity for improvement of treatment. They indicated that anaerobic microorganisms might play a more important pathogenic role than previously thought. Furthermore, they felt that treatment would benefit by combined study of each case by a physician and surgeon. It was their opinion that the treatment of acute abscess was primarily a medical problem, and when surgery was necessary results were far more successful after preliminary medical observation and treatment. This paper evoked a very spirited discussion.

THE FORTY-FIRST ANNUAL MEETING

The forty-first annual meeting was held at the Hotel Ambassador in Atlantic City, N.J. from May 1 to 3, 1924, under the presidency of Gordon Wilson.¹⁸ Wilson's Presidential Address was entitled "Idle Thoughts on Medical Education." After pointing out the major milestones in the history of medical education, he continued:

A commercial organization properly organized would devote its capital and its plant to its different products in proportion to their relative quantity and value, and perhaps if we were to ask advice from the industrial world we would be told to follow their example. With these facts before us we can frame a definition of what is the object of a medical school that will clearly set forth our raw material and our finished products, with their relative value and our means of manufacturing that permits a maximum use of plant.

The object of a medical school is to educate properly qualified men and women to become practitioners of medicine, and in so doing to give them the foundations whereby with further study they may become specialists, teachers or research workers. With this definition before us we are in a position to see that the teaching in all departments, especially of the clinical years, conforms to it and the poor medical student no longer had to learn the technique of a cystoscopic examination but simply the indications for it and its limitations.

Having defined what is the object of a medical school, it might be advisable to realize that a medical school is a *professional* school and not a graduate school, terms not synonymous in spite of the authority of many inaccurate thinkers, and with this realization the proper position of research at the expense of knowledge of fundamentals is at once evident both for the student and the teacher.

Twenty-eight papers were presented during the scientific sessions, revealing the upsurge in clinical investigation in fields outside the heart and lungs. Robert Wilson, Jr. presented his data on transient cerebral paralysis, a subject that has received prominent attention only recently. John A. Lichty discussed the symptomatology and diagnosis of chronic duodenal ileus. James M. Faulkner, Henry C. Marble, and Paul D. White talked about the differential diagnosis of coronary occlusion and of cholelithiasis. William B. Porter presented his studies on the clinical course of the "effort syndrome," while Herbert M. Rich discussed bronchial asthma as an occupational disease. One of the highlights was the paper presented by Charles L. Minor on "The Confessions of a Therapist, or Some Meditations on Modern Therapy."

THE FORTY-SECOND ANNUAL MEETING: THE FURTHER INTRUSION OF CLINICAL SCIENCE

The forty-second annual meeting of the Climatological, held under the presidency of George W. Norris¹⁹ of Philadelphia, in Washington, D.C. in 1925, was marked by the appearance of several papers in the broader field of clinical investigation. These were given, for the most part, by younger members who were to make their mark in clinical science in the ensuing years. James H. Means of Boston, who later became chief of medicine at the Massachusetts General Hospital, discussed the measurement of basal metabolism in the management of thyroid disease. He concluded that subtotal thyroidectomy during an iodine remission was the best treatment of the disease. He still believed that roentgen therapy gave good results in many cases and recommended it for those patients

who refused operation or in whom operation was contraindicated. This was followed by an excellent paper by Edward A. Strecker of Philadelphia, who occupied a prominent position in the field of psychiatry, on the differential diagnosis between hyperthyroidism and psychoneuroses. In summarizing his points, he stated that no great differential diagnostic difficulty will arise either in classical instances of hyperthyroidism or in typical examples of the neuroses. In the numerous borderline states, he said that it is not safe to place too much reliance on individual symptoms but rather to consider the persistence of certain main syndromes. The heart signs and the tremor of hyperthyroidism will give the most conclusive information. He believed that much diagnostic assistance could be obtained from a close study of the mental state in the psychoneuroses. Neither the emotional deficit of hysteria, the invalidism of neurasthenia, the compulsions and phobias of psychasthenia, nor the wave-like somatic fear portrayals of the anxiety states are consistently and persistently imitated in true hyperthyroidism. Clinical laboratory tests are of adjunctive value, and a constant basal metabolic rate of more than +15 is an indication of hyperthyroidism.

The next paper was by David Marine on iodine in the treatment of disease of the thyroid gland. Marine, of course, is well known for his important studies on the pathogenesis of goiter and for his introduction of the use of iodized salt in the treatment of endemic goiter. In this paper he concluded that goiter is a compensatory or work hypertrophy of the thyroid in response to a real or relative deficiency of iodine. He indicated that the greatest value of iodine in thyroid disease will always be in prevention, as its value in treatment is limited and conditioned. Simple goiter, he felt, should be treated with desiccated thyroid combined with iodine. One of the discussants of these papers was Henry S. Plummer, who was there as a guest of the Climatological. He pointed out that one could not talk in the same words of the adenomas and of exophthalmic goiter: The application of the term "exophthalmic goiter" to hyperthyroidism and the adenomatous goiters leads to a misnomer. He went on to say that iodine given in patients with exophthalmic goiter from the inception of the disease will yield a different picture, as small doses of iodine will make such patients well in two weeks.

Another well-received paper was that of Paul D. White, who had been a member for several years. He discussed the indications for the use of quinidine sulphate in heart disorders, describing 15 cases that illustrated the indications as well as contraindications for the use of this drug. Finally, there was a presentation by Joseph H. Pratt of Boston entitled "The Dilution and Concentration Test of Renal Function." This test, he felt, gave important information regarding kidney function. If an abnormal response was obtained, the test should be repeated once or twice

after measures had been taken to remove disturbing extrarenal factors, chiefly dehydration of the tissues and an excess of water in the tissues. The papers presented at the forty-second annual meeting illustrate the Climatological's expanding horizons and its new status as a forum for presentation of the results of clinical investigation in various fields of medicine.

THE FORTY-THIRD ANNUAL MEETING: BLENDING OF THE ART AND SCIENCE OF MEDICINE

At the forty-third annual meeting, on September 27, 1926, in Philadelphia, David Russell Lyman²⁰ gave his Presidential Address, entitled "Our Family Circle." He felt that the Climatological had always had the characteristics of a great family circle, the strength of which lies not in the record or the brilliance of any individual member, but rather in the union of a group of various ages, tastes, temperaments, and degrees of intelligence. All the members of such a group regard the record of the family as a whole with such pride and affection that they are always ready to adjust their individual differences through give-and-take. Families whose talents all lie in one direction soon lose their influence in the general life of their communities, as their field of vision is too narrow. Lyman felt that the blending of different age groups would be the basis of the Association's continued strength, since the true strength of a family lies in its two extremes of age, holding as they do wisdom for its present needs and strength for the future. With few exceptions, he went on, recruitment should be almost entirely from the younger group at this stage, with the middle group yielding a few new members who have both outstanding ability and personality but who have not yet finished growing despite their years. He had no doubt that the future of medicine was slowly building upon a basis of science unknown to the present generation, and there was no question but that to keep the circle "virile" and productive one must renew it with the men trained in the modern sciences. However, he pointed out, the danger ahead lies in the tendency to consider this scientific training as the sole or even the chief source of new strength for the family circle. He urged that considerations not be based primarily on the number of papers a man has written but on the man himself.

The renewed energy of the Association was demonstrated by the continued intrusion of clinical science into its programs. James Alexander Miller and Edward Percy Eglee discussed bronchograms in the study of pulmonary disease, a topic that evoked considerable discussion. An excellent paper was given by Henry Sewall with M. B. Lurie and their collaborators on some relations of vitiated air and inadequate feeding in experimental tuberculosis. Russell L. Cecil discussed the classification of

chronic arthritis, and Russell L. Haden described his experiences relating to chloride metabolism in lobar pneumonia. Donald M. Medearis and George R. Minot presented their studies on the diameter of red blood cells.

THE FORTY-FOURTH ANNUAL MEETING

An excellent meeting was held under the presidency of Walter Albert Baetjer²¹ at White Sulphur Springs on May 19, 1927. The minutes describe the format and comment on the social aspects:

The [scientific] meetings occupied the mornings. One short afternoon session was held; otherwise the afternoons were devoted to golf, riding, tennis and swimming. Also several parties motored over the mountains to the Virginia Hot Springs, some forty miles away. At tennis the Association team, Webb and Miller, beat a young Cincinnati team who had been long playing together. And at the same time our oldest member put up a good game against the hotel professional, all going to show that tennis is not necessarily a game for youngsters.

The evenings developed a surprising number of skillful bridge players and enthusiastic dancers. The afternoons and evenings gave ample opportunity to discuss the papers in small groups which were able to draw out the real enthusiasm of the contributor for his subject, also at times making him defend his position.

Here is one of the earliest evidences of the change in format that was to lead to the present unique pattern of the meeting and to contribute greatly to the success of the Association.

In his Presidential Address, Baetjer pointed out: "We essentially are becoming a society of general internists vitally interested in the whole field of medicine, too vast for us to grasp individually, but not too vast for us to grasp as a group.

"What we want fundamentally is a society of well-balanced membership, of members interested in the entire field of medicine, each one of whom can contribute something to the practical store of knowledge, and from whom every one of us can get help. . . . This we may do both by the type of work presented in the scientific program, and what is equally important, that we arrange our meetings in such a way that there is more time for personal contact, personal association and personal exchange of views on subjects in which we may each be individually interested."

The older clinicians were clearly concerned about the rapidity and the extent to which laboratory methods were invading clinical medicine. There was considerable feeling that the medical schools were presenting a disproportionate number of courses relating to laboratory methods, to the detriment of the necessary training in clinical skills. H. R. M. Landis began his presentation entitled "Laboratory and Clinical Methods" with a statement by Francis Bacon: "Some dispositions evince an unbounded admiration for antiquity, others eagerly embrace novelty; only a few can preserve the just medium, and neither tear up what the ancients have correctly established, nor despise the just innovations of the moderns."

THE FORTY-FIFTH ANNUAL MEETING

A memorable point in the history of the Climatological was the meeting held in 1928 in Washington, D.C. under the presidency of Joseph H. Pratt.²² Pratt was one of the pioneers in this country in preparing himself for a career in clinical science. A rugged New Englander, he was born in Middleborough, Massachusetts on December 5, 1872. At the age of 18 he studied in the Sheffield Scientific School of Yale, where he was first introduced to investigation by Russell H. Chittenden. In the autumn of 1894, he entered Harvard Medical School. Physiology was then a flowering experimental science at Harvard: William B. Porter was working with nerve muscle preparations; Charles S. Minot was studying the development of the guinea pig embryo; Walter B. Cannon was contributing to our knowledge of the digestive process; and Pratt learned from each of them. After his first year at Harvard, Pratt transferred to Johns Hopkins, where he became aware that the study of pathology was the key at that time to the understanding of disease. At Johns Hopkins, he was greatly influenced by Osler. After graduation in 1898, Pratt returned to Harvard to work under William T. Councilman in pathology for four years. During this period, he took a leave of absence to study in the clinic of Professor Ludolf Krehl, who was then writing his *Principles of Clinical Pathology*, a book that Osler described as filling the gap between empirical and scientific medicine.

From 1900 to 1917 Pratt was on the faculty of the Harvard Medical School. In 1902 he began the private practice of medicine but managed to combine this with laboratory investigations into diseases of the blood, the pancreas, pneumonia, the psychoneuroses, and tuberculosis. In 1906 Pratt offered a course in clinical research as an elective for fourth-year students; one of his pupils was Francis W. Peabody, who later became a distinguished professor of medicine at Harvard. This course had great significance, because at that time a real barrier of prejudice and misunderstanding existed between scientists and clinicians. Pratt tried at every chance to unite the "old humanities and the new sciences." He was responsible for the reintroduction of pneumothorax as a therapeutic procedure in this country; he was the first to emphasize the importance of prolonged bedrest without exercise in the treatment of pulmonary tuberculosis; and he was the originator of group psychotherapy for these patients. His interest in the cardiac arrhythmias was stimulated by his contact with Sir James Mackenzie while he was studying in Krehl's clinic; Mackenzie showed him in 1908 how to use the polygraph. The importance of pancreatic juice for the absorption of fat was first shown experimentally by Claude Bernard, who observed large amounts of fat in the feces after destruction of the pancreas by the injection of oil into the

ducts. Pratt demonstrated the paramount importance of the pancreatic juices, using a method devised by F. T. Murphy that completely isolated the pancreas from the intestine. In all his animal experiments, Pratt found a marked decrease in fat absorption, with 67 percent of the intake recovered from the feces. The fat splitting was normal and the amount of soap in the feces inconstant. As in human beings with a like condition, the stools were massive and the fat was visible to the naked eye.

Nor was Pratt lacking in administrative gifts: he was responsible for the development of the New England Medical Center of Tufts University School of Medicine and Dental Medicine.

It was in his Presidential Address at this 1928 meeting of the Climatological that he enunciated his philosophy of medicine: "We need physiological clinicians and not clinical physiologists. Without a firm foundation of physiology or pathological anatomy, clinical experience can with justice be compared to a house built on sand But a scientific foundation without clinical knowledge and experience is no house at all." As Dr. Samuel Proger wrote: "Dr. Pratt appeared on the medical scene when scientific medicine in America was in its infancy. He left the medical scene when scientific medicine in this country had made such great strides as to place it in a position of world leadership. His driving energy, relentless probing, insatiable curiosity and boundless enthusiasm added much to the ferment that made American medicine bloom."^{23, 24}

One of the most interesting papers presented at this session described a very simple clinical observation by John T. King that enabled him to make the diagnosis of bundle branch block from the physical findings alone. In addition, Francis M. Rackemann presented his instructive studies in asthma.

THE FORTY-SIXTH ANNUAL MEETING

The forty-sixth annual meeting began on May 2, 1929, at the Chamberlain-Vanderbilt Hotel, Old Point Comfort, Virginia, with Dr. J. Woods Price of Saranac Lake in the chair. William LeRoy Dunn,²⁵ who had been elected president, died in the year preceding this meeting. Chairman Price had discussed Dr. Dunn's wishes regarding the meeting, and he deemed it a privilege to have the opportunity to pass on to the membership Dunn's last thoughts about the Society that he loved so well. Price went on to say:

He wished the human side of medicine to be featured on the program of this meeting. Saying, "As men grow closer throughout the years to members of such a small association as this, it behooves them to give consideration to the aspirations and ideals of each member." That he "deemed it necessary to arouse a closer spirit of comradeship." That his personal experience had taught him that "real accomplish-

ment in medicine is effected by making it not only the job, but also the pleasure and recreation of each doctor." That "in all medical societies there is a tendency to read papers on medical research and scientific studies only," and that "more than ever the doctor needs today a resumption of the old-fashioned 'smoker talks,' in which men come very close to each other, and where all are enabled to exchange their innermost thoughts." That "this friendly personal side is greatly needed, and if this intimate relationship is fostered and developed it would make for a type of closely interwoven interests which would be unequaled in any other medical society in the country." That he "would like to hear from the members of the Climatological and Clinical Association of the invaluable aid of the human touch throughout their practice." He expressed the belief that the members of this Society could probably contribute more to a program of that nature than any group of medical men of equal number, and that the spirit of good fellowship already existing among us could easily be nourished into something truly great.

Price then went on to discuss a subject of interest to him; namely, whether the blame for the delay in the diagnosis of incipient pulmonary tuberculosis should rest upon the shoulders of the practicing physician or be attributed to faulty instruction. He then outlined the various steps in making such a diagnosis and concluded that if teachers would, in their instruction of students, stress the simple measures he discussed, much of the confusion would be eliminated. He quoted a remark by Sir James Mackenzie in relation to cardiac disease and its recognition: "When we search for the recondite and obscure, we fail to recognize the simple and the obvious."

In organizing the scientific program, Price tried to follow Dunn's wishes as closely as possible. Most important was an address entitled "Ours is the Power" by Henry Sewall. Among the outstanding papers presented were: "Liver Extract in the Treatment of Non-Tropical Sprue," by William B. Porter and J. E. Rucker; "A Study of Tissue Allergy in Skin Transplants," by A. H. W. Caulfield, M. H. Brown, and W. Magner; "Diagnostic Relations Between the Gall Bladder and the Heart," by Stewart R. Roberts; "Treatment of Auricular Flutter," by Thomas M. McMillan and Samuel Bellet; "The Significance of Comparative X-Ray Findings in the Prognosis of Pulmonary Tuberculosis," by Francis B. Trudeau; "Pulmonary Neoplasm and Differentiation from Pulmonary Tuberculosis," by Walter C. Klotz; and "Character of Blood Changes in Cases of Chronic Pulmonary Disease," by W. S. Lemon.

Walter Darlington made some pertinent remarks at the close of the meeting:

While these papers have been very, very scientific and very beautiful, I trust that you will all do one other thing; that is, you will remember to keep well so that we may come together next year. It is a great thing for this Clinical Society to meet together. Let's all keep here on earth. Also, there is one other thing to remember—that our patients are human beings and that:

The man of medicine should ever be
A wholesome man if he would doctor be,
A man of hearty ways and cheerful eyes
Who all depressing circumstance denies,
Who carries inspiration in his voice
And in whose life and health we rejoice;
The sad and sick and suffering miss
The touch of a man like this,
Whose thrilling magnetism and cheerful laugh
Add to the remedies their better half,
Re-enforce the courage and the will
And give sure virtue to the doubtful pill.

THE FORTY-SEVENTH ANNUAL MEETING

The forty-seventh annual meeting was held in Quebec on May 20, 1930, with Gerald B. Webb,²⁶ of Colorado Springs in the chair. Webb gave a very learned Presidential Address on "Early Medicine in Quebec." A memorial note was offered by Sterling Ruffin for Charles Williamson Richardson,²⁷ president of the Climatological in 1923. Richardson graduated in medicine at Columbian (now the George Washington) University in 1884. He interned in Philadelphia under William Osler, and as a student and intern was under the guidance of D. Hayes Agnew, William Pepper and Horatio C. Wood. From early manhood he was an intimate friend of W. W. Keen. After studying abroad, Richardson limited his work to laryngology and otology, a field in which he was a pioneer. In 1885, the modest Joseph F. O'Dwyer of New York perfected the laryngeal intubation tube, with instruments for its introduction and removal. Acceptance of intubation as the best treatment for obstruction of the larynx by diphtheria was not promptly accepted by some of O'Dwyer's colleagues, but Richardson eagerly mastered the technique and became so expert at it that to an onlooker it seemed to be a perfectly simple and easy procedure. In 1891, Richardson was appointed professor of laryngology and otology at the George Washington University, a position he held until 1924. During World War I, he was put in charge of the Sub-section of Diseases of the Ear, Nose and Throat in the office of Surgeon-General Gorgas. He was president of the American Otological Society in 1914, and of the American Laryngological Association in 1928. He was also a fellow of the Royal Society of Medicine of London. Throughout his career, he was a great proponent of efforts to learn more about the problems of the deaf and hard of hearing.

A number of outstanding scientific papers were offered at this meeting. Many active and talented young clinicians were joining the Climatological, and they were presenting their clinical studies before the Association.

Some examples of well-received papers were: "Undulant Fever: A Report of 15 Cases," by L. W. Gorham and Thomas Ordway; "The Clinical Picture of Psittacosis," by John T. King; "Experimental Upper Respiratory Infections in Anthropoid Apes," by A. R. Dochez; "Systemic Conditions Influencing Human Fertility," by Charles H. Lawrence; "The Nature of Allergy," by Francis M. Rackemann; "Some Factors in Metabolism of Importance in Obesity," by Frank A. Evans; "Pulmonary Asbestosis," by Willard B. Soper; "Continuous Instead of Interrupted Artificial Pneumothorax for the Control of Hemoptysis," by C. D. Parfitt; and "The Prescription of Literature," by Gerald Webb.

THE FORTY-EIGHTH ANNUAL MEETING

The forty-eighth annual meeting was held at the Homestead, Hot Springs, Virginia on May 7, 8, and 9, 1931, under the presidency of George Morris Piersol.²⁸ Again there was clear evidence of the changing character of the program. J. T. Wearn and his associates, A. W. Bronner and Louis J. Zschesche, talked about their outstanding work on the significance of the blood vessels in heart valves. William S. McCann and Doran J. Stephens described clinical conditions associated with sclerosis of the pulmonary arteries. "The Diagnosis of Pericardial Effusion" was the topic presented by Paul D. Camp and Paul D. White, while Russell L. Haden gave a description of the clinical value of the determination of the size of the red blood cell. Among the younger men who participated was E. Cowles Andrus of Baltimore, whose paper was entitled "The Renal Manifestations of Obstruction of the Lower Urinary Tract," while O. H. Perry Pepper gave an interesting description of malignant hypertension simulating cerebral lesions.

Chapter 7

FORCES FOR CHANGE

Dr. Lawrason Brown became a member of the "Climatological" in 1904 and was its president in 1920. Throughout all these years he rarely failed to attend a meeting, contributing frequently to the program and always to the discussion. His love for the Climatological was great, and he was among those who saw the need for a change of policy. At the Washington meeting in 1922, he asked a small group of enthusiastic members to meet him in the hotel room that he was sharing with Dr. Charles Minor. Brown expressed the belief that the need had passed for a society such as the Climatological then was, but that its friendly and helpful spirit should be preserved; that the papers should embrace broader clinical subjects than those of especial interest to men living in health resorts; and that new members should be selected from workers in every field of medicine.

Dr. Gordon Wilson (Fig. 16) was among those present. He saw the light and immediately set to work. That he, in collaboration with Dr. Walter Baetjer (Fig. 17) and Dr. Louis Hamman (Fig. 18), were able to leaven the loaf is an important part of the history of the Climatological. These three men were actively concerned for the best part of the following nine years with the responsibility of admissions to membership, serving for most of that period on the Council. They were able to instill a new spirit into the Association at a time when interest waned and many members failed to attend the meetings or to submit worthwhile papers.

In 1924, only 75 members attended the meeting and the Council presented no new names for membership in the Association. That year, an amendment to the constitution was passed: "Anyone who has been a member in good standing in this Association for 25 years is automatically transferred to life membership, and anyone who has been an active member for 20 years in good standing and has attained the age of 60 years may become a life member by expressing his desire to do so in writing to the Council." In view of the limit to the number of active members this was an effort to increase the number of vacant positions for the election of new members. As might be expected, some of the older members of the Climatological expressed some resentment at being put on the shelf.

Among those elected in 1925 were Russell L. Cecil, Robert A. Cooke, George Draper, Alphonse Dochez, and Henry R. Geyelin of New York; Russell Haden of Kansas City; John T. King, of Baltimore; Thomas M. McMillan of Philadelphia; George R. Minot of Boston; and Charles C. Wolfert of Philadelphia—all men who fitted the pattern advocated by



FIG. 16. Gordon Wilson (Courtesy of Dr. Theodore Woodward)

Hamman and his colleagues. In his Presidential Address of 1926, David R. Lyman of Wallingford, Connecticut stressed that new men should be recruited from the younger group. He also felt that they should have a scientific background: "No doubt but the future of medicine is slowly building upon a basis of science unknown to our generations, and no question but that to keep our circle virile and productive we must ever renew it from the group who are trained in those modern sciences and who are yet in that portion of the life cycle where the lure of the unknown is still calling to them to put forth their highest efforts." He warned, however, against any tendency to consider scientific training as the sole or even the chief source of new strength for the family circle. It was his feeling that "the combination of heart and brain is ever the one that wields the greatest influence."

Additional members of talent were also elected in 1926, including Maurice C. Pincoffs. The new recruits in 1927 were Logan Clendenning

of Kansas City, Frank Evans of Pittsburgh, George R. Herrmann of New Orleans, and W. B. Soper of New Haven. Among those elected in 1928 who were to add distinction to the Association were Francis M. Rackemann and Joseph Treloar Wearn. During this period individuals could be elected to associate membership, but they were usually given full membership after a year in this category. In 1929 those added to membership included Maurice Fremont-Smith, Henry Jackson, Jr., William S. McCann, and James J. Waring, all of whom were to add luster to the proceedings of the Association.

The influx of excellent new members continued in 1930 with the addition of Charles R. Austrian of Baltimore, Hugh J. Morgan of Nashville, and O. H. Perry Pepper of Philadelphia. In 1931, Henry M. Thomas, Jr., of Baltimore, was added to the membership. In 1932, additional excellent choices were admitted, including Harold L. Amoss of Durham, Edwin Cowles Andrus of Baltimore, Robert L. Levy of New York, T. Grier Miller of Philadelphia, David T. Smith of Durham, Howard B. Sprague of Boston, Cyrus C. Sturgis of Ann Arbor, and J. Edwin Wood of Charlottesville.

In 1933, following the death of Gordon Wilson, the Council voted to establish the Gordon Wilson Medal for Clinical Excellence. The succeeding lectures that the Climatological has had the opportunity to hear attests to its suitability as a memorial to the tremendous effort that Wilson, among others, put into assuring the survival and effective growth of the Association. It was fitting that in 1933 an unusually talented group of new members was admitted to the Association, including Herrman L. Blumgart of Boston, C. Sidney Burwell of Nashville, Tennessee, George A. Harrop of Baltimore, Chester S. Keefer of Boston, John W. Moore of Louisville, Henry B. Mulholland of Charlottesville, and Thomas M. Rivers and John H. Wyckoff of New York.

THE FINAL CHANGE IN NAME

On May 10, 1933 the final change in the Association's name came with the alteration of Article I in the constitution to read "The society shall be known as the American Clinical and Climatological Association." Dr. Lawrason Brown, in discussing this amendment at the Council meeting in 1932, indicated that while he had been a member of the Climatological Association for many years and had always been fond of the "Climatological" part of the name, the time had come to drop the term and to label the Association simply as the American Clinical Association. Dr. Gordon Wilson differed strongly, bringing out the fact that there was a historical interest of such importance to the name that it would be a mistake to drop it, especially since the Association's 50th anniversary would arrive the following year. James Alexander Miller supported Wil-



Perkins

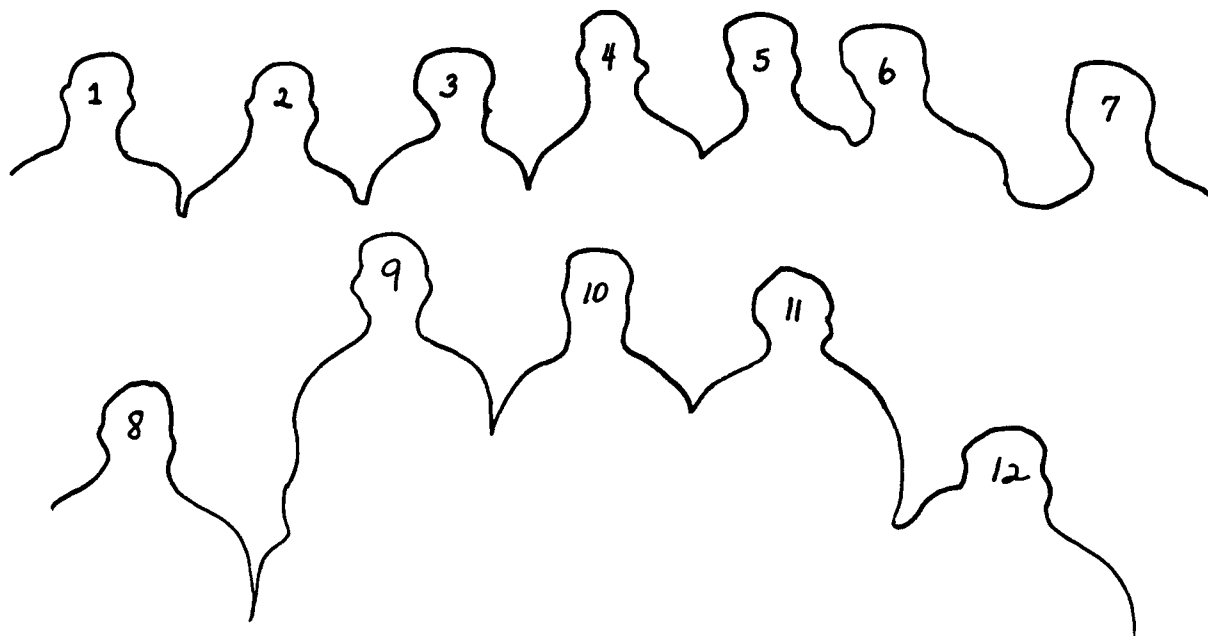


FIG. 17. Faculty group at Johns Hopkins circa 1914 (Chesney Archives, The Johns Hopkins Medical Institutions, Baltimore, Md.). 1- Robert L. Levy, 2- Arthur L. Bloomfield, 3- Dorothy Clarke, 4- Thomas P. Sprunt, 5- Wilbur G. Carlisle, 6- Eveleth W. Bridgman, 7- Alan M. Chesney, 8- George R. Minot, 9- Charles R. Austrian, 10- Paul W. Clough, 11- Walter A. Baetjer, 12- F. Janney Smith



FIG. 18. Louis Hamman

son, pointing out that the name had great sentimental value and that it should be continued. President Hamman turned to one of the younger members present at the Council meeting, Dr. Rackemann, who felt strongly that the designation was unique and it would be quite undesirable to drop the word Climatological—the one word which all the members used in referring to this society among themselves.

It was fitting that in view of his efforts to bolster the strength of the society, Louis Hamman should have been president in 1932, when the Council approved the change in name. The success of his efforts in collaboration with Gordon Wilson and Walter Baetjer was evidenced by the program that he assembled for this annual meeting.

The next president, Charles Parfitt, wrote to Secretary Rackemann on May 7, 1934, discussing the name of the society:¹

I note that in the 1932 *Transactions*, Wilson, Lyman, Miller and Eliot, as well as yourself, were all in favor of carrying the word Climatological in the title of the

Association for sentimental reasons. There is no doubt that when the name of the Association is mentioned to nonmembers the dual name requires some explanation and the word "climatological" justification. Fond as I am of the Association, I think it would be better defined as to purpose and in heightening the esteem of outsiders by following Brown's suggestion to limit the name to the American Clinical Association. With this limitation and scope I believe that the criticism of the younger men would be better met. I can see the object of the Association to bring together a group of men engaged in practical medicine in various fields who are interested in clinical research rather than in experimental research. They may or may not be teachers of practical medicine, but those who are can be of great assistance to other members who are not. More specialized societies have undoubtedly invaded fields of work in which our miscellaneous membership is interested and thus make our existence harder and our society less well justified. Because of this the point of good fellowship is an adjunct which is generally appreciated, I think, although I feel that it should be felt and implied rather than stressed. In 1913 the name and scope of the Association were changed. There were evidently heart searchings then.

Further reformation was attempted with fair success. Many new members entered after this date, possibly and probably with considerable condescension in order to help raise its standard. While some members have given uplift, after some time their prestige may have been something of a deterrent to self endeavor of the less distinguished members. I have been encouraged in recent years to think that high class men find something worthwhile in the society, less sublimated than the AAP and the Young Turks because there is an attempt to epitomize practical clinical medicine.

In 1934 the letterhead of the Association read "American Clinical and Climatological Association," so that the name problem was finally settled. It is clear from this correspondence that Rackemann occupied the office of secretary at a very critical time in the Association, when major changes were in progress. His devotion to the job and his love for the Association played a major role in the successful outcome.

The man most responsible for reviving the Climatological in the midst of its most dangerous path toward extinction, Charles L. Minor, died on December 26, 1928. In his excellent Memorial of Minor, Paul H. Ringer said:²

The fame and reputation that he achieved both nationally and internationally are known to all here. Before this gathering he needs no eulogy nor do his attainments require justification. Before this body of men one can speak more intimately and personally concerning what the "Climatological" meant to him and what he meant to the "Climatological". . . .

Dr. Minor was a sincere believer in the value of medical societies and confirmed that belief by faithful attendance at the meetings of the many organizations to which he belonged. I know, however, that in his mind the associations in which he participated were divided into two classes: 1) the Climatological [and] 2) all the rest. He anticipated the meetings of this Association with pleasure and an enthusiasm that cannot be realized by those of you who did not associate with him from day to day. He felt that at its meetings he received not only mental stimulus and professional incentive, but, far better than these, he met his warm and intimate friends; friends that distance and the mutual pressure of the demands of practice prevented him from seeing as frequently as he would have wished. These meetings were for him a veritable

outpouring of his soul and a lavishing of affection upon men whom he loved, whose photographs adorned the walls of his office, to whom he often wrote, but who, at last, he could clasp by the hand and talk to in the flesh. He always returned from the Climatological stimulated, refreshed, and strengthened in his belief in the sanctity and permanence of human friendship. I know that of the many honors bestowed upon him none pleased him more or came closer to his heart of hearts than the presidency of this Association in 1913.

And what did he mean to the "Climatological"? Very much what the "Climatological" meant to him, for affection is nothing if not reciprocal. With his geniality, his remarkable facility of speech, his interest in all medical topics whether connected with his own specialty or not, with his versatile and encyclopedic mind, with his lightning-like thrust at an opponent in discussion, and his frank appreciation of the value of that opponent's argument when based on reason and truth; with his masterful personality and capacity for utter enjoyment, he was time and again the life of the party. On the few occasions when he was forced to miss meetings, the oft repeated "Where is Minor?" "How is Minor?" "How we miss Minor!" amounted to a veritable slogan. The Climatological meetings were of two kinds: one when Minor was there—the other when he was not.

The precepts and goals set for the Climatological during this period of its evolution were well expressed by President John Eager Howard in his presidential remarks in 1973:

The Association, I believe, with all its delights, has steadfastly maintained the precepts and goals set for it by its founding fathers. It has yielded with the punch of overemphasis on science in medicine, but has not broken. If now, when the pendulum swings the other way, from basic investigation to technical service, as is everywhere confidently predicted, let us hope that the leaders of this association again bend but don't break, and that the *science* of medicine will still be a strong factor in our midst as we continue to strive for better patient care in an atmosphere of generous friendship.

Change is ever with us, inescapable; it is a part of biology and life; but let us change only for the better and not discard the good precepts our heritage has left us. Let our motto be, as in the old French saying of Paris: "*Le plus Paris change, le plus elle reste la même.*" The more Paris changes, the more she remains the same. So be it with the Clinical and Climatological Association.

THE FORTY-NINTH ANNUAL MEETING

The forty-ninth annual meeting was held at the Seaview Golf Club in Absecon, New Jersey, on May 5, 6, and 7, 1932 (Fig. 19), under the presidency of Louis Hamman.³ At that meeting the Council voted on an amendment to the constitution to change the organization's name to the American Clinical and Climatological Association from its previous title, the American Climatological and Clinical Association. The constitution was changed to read: "The object of this Association shall be the clinical study of disease, especially of the respiratory and circulatory organs." The change was approved by the membership in 1933.

Hugh J. Morgan and his associates, H. T. Hillstrom and C. G. Blicht, talked on "Early (Subclinical) Syphilitic Aortitis: An Evaluation of Radiographic Diagnostic Methods." Hugh Morgan was to become profes-

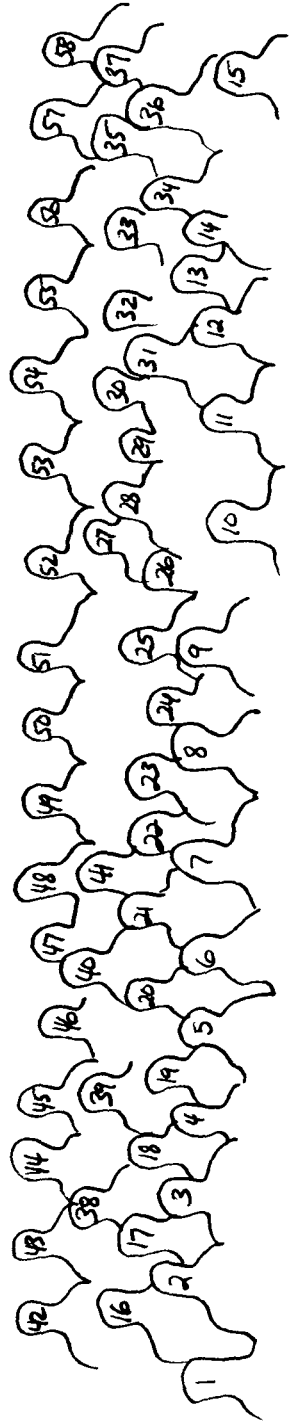
sor of medicine and chairman of the department at Vanderbilt. Dr. George R. Minot presented further work on pernicious anemia, stating that this disease, like other deficiency states, should be treated on a quantitative basis by supplying enough potent material to meet the optimal daily demands of the patient's body throughout life. To give enough just to maintain the red blood cells at their normal number does not imply that all demands of the body have been met adequately. In the extensive discussion that followed, Minot emphasized that pernicious anemia is not only a disease of the blood but involves other systems, including the nervous and the gastrointestinal systems. Another paper that represented increasing attention to psychological problems was the discussion of Maurice Fremont-Smith on "Relationships Between Emotional States and Organic Disease." This paper provoked an unusual amount of discussion. The effect of tonsillectomy on the occurrence and course of acute polyarthritis was the subject presented by Maxwell Finland, William H. Robey, and Harry Heimann. In the discussion, President Hamman pointed out that everyone felt that a strong relation existed between tonsillar infection and rheumatic fever, and there was a general impression that many cases were benefited by tonsillectomy. There was, however, no statistical evidence either to prove that children who have had their tonsils removed have a smaller incidence of rheumatic fever than children whose tonsils have not been removed, or to show that children who have had one attack of rheumatic fever have fewer subsequent attacks if the tonsils are removed than a similar group in which the tonsils have not been removed. Another of the distinguished members of the Association, Henry Jackson, Jr., talked on "Some Little Appreciated Aspects of Malignant Lymphoma."

It is interesting that in this stage of the Climatological Association's existence, special round-table sessions were held in the afternoons. These were conducted by one of the members and the basic subjects were related in most instances to diseases of the heart and diseases of the chest. These had been organized at the request of many members who did not play golf or tennis and who wished to have the opportunity for additional medical discussion at the meetings.

THE FIFTIETH BIRTHDAY

The fiftieth meeting of the Association occurred in 1933. The meeting that year was one of the most memorable in the history of the Climatological, taking place on May 9 and 10, in Washington, D.C. under the presidency of George R. Minot,⁴ with Francis M. Rackemann in his first year as secretary.

There were several notable events: first, this was the year in which the Gordon Wilson Medal for Clinical Excellence was established, in memory



of this distinguished member of the Association who had died in 1933; and second, the suggestion was made that this Association meet in the fall, perhaps in the second week of October, rather than in the spring. In the northeast at least, there were a number of spring meetings, including that of the American Medical Association, and it appeared to many that it would be more pleasant to separate the Climatological meeting from the others. This recommendation was to be voted upon the following year.

As one looks at the program this half-century year, it is clear that the Climatological had come fully into the modern era of clinical science and its relation to a sounder medical practice. Only three papers on the program were related to tuberculosis. The program was more than ever dominated by men whose interest was in the broader aspects of internal medicine, including Russell L. Haden, Russell L. Cecil, George Draper, T. Grier Miller, Robert L. Levy, L. W. Gorham, Howard B. Sprague, Fuller Albright, E. Cowles Andrus, M. C. Pincoffs, Paul D. White, James J. Waring, George C. Shattuck, Joseph H. Pratt, Richard A. Kern, Francis M. Rackemann, Walter R. Steiner, David T. Smith, J. Edwin Wood, Jr., and Alphonse R. Dochez.

FRANCIS RACKEMANN BECOMES SECRETARY: A TURNING POINT IN THE FORTUNES OF THE CLIMATOLOGICAL

In 1933 George Minot was elected president of the Association, and in that same year, Stone resigned his secretaryship. Minot had the authority to appoint a new secretary, and he appointed Francis Minot Rackemann. Stone was pleased with this arrangement and told Rackemann: "The Climatological is a remarkable group of friends. They are all good fellows and they will do whatever you tell them to do." Minot, in discussing the move with Rackemann, said: "Here is a wonderful opportunity. Let us

FIG. 19. Members of the American Clinical and Climatological Association, Seaview Golf Club, near Atlantic City, May 5, 1932 (Courtesy, The Francis A. Countway Library, Boston, Mass.). 1- H.A. Bray, 2- F.M. McPhedran, 3- E. Mayer, 4- J.T. King, Jr., 5- A.H. Garvin, 6- J.J. Waring, 7- R. Wilson, 8- G. Wilson, 9- H. McLeod Riggins, 10- C.C. Habliston, 11- G. Miller, 12- W.B. Mount, 13- J.H. Pratt, 14- W.H. Robey, 15- R.R. Snowden, 16- H.M. Thomas, Jr., 17- J.H. Elliott, 18- J.H. Smith, 19- N.K. Wood, 20- O.H.P. Pepper, 21- G. Thorburn, 22- J.B. Amberson, 23- W.B. Soper, 24- C.D. Alton, 25- L. Hamman, 26- A.K. Stone, 27- T.N. McMillan, 28- F.B. Trudeau, 29- T. Klein, 30- W.A. Griffin, 31- L.W. Gorham, 32- A.H. Gordon, 33- G.M. Piersol, 34- L. Brown, 35- D.R. Lyman, 36- H.L. Barnes, 37- C.W. Crankshaw, 38- W.B. Porter, 39- H.M. Kinghorn, 40- C.W. Dowden, 41- W.L. Bortree, 42- E.W. Packard, 43- H.J. Morgan, 44- C. Floyd, 45- J.W. Price, 46- I.I. Lemann, 47- P.H. Ringer, 48- T.C. Kelly, 49- A. Keidel, 50- C.R. Austrian, 51- J.B. Hawes II, 52- E.H. Funk, 53- A.B. Gilbert, 54- F. Rackemann, 55- M. Fremont-Smith, 56- H. Sprague, 57- T.P. Sprunt, 58- W.A. Baetjer

see how this Association can be improved still more. First, we must continue to choose new candidates with greatest care. Let us try to find scholars who have culture and charm, and then let us find attractive men who are scholars." They also discussed a second important matter, agreeing that the president, rather than the secretary, should be responsible for the program, as had previously been the case. In that way they felt that the president could set the tone of his own meeting.

In the beginning Rackemann was ambivalent about accepting the position of secretary. He did so for the initial year mainly because of his friendship with Minot. On April 3, 1933 Louis Hamman wrote to Francis Rackemann:⁵

My own feeling is that you and Minot have done so much this year and produced a program which is altogether delightful and absolutely in tune with the new spirit that for the past nine years we have been nursing. About that many years ago, some of the wiser heads felt that the Association could not continue on just brotherly love. It was felt that there was a real place for such an Association as this one and that there must be enough men in the country doing good work who would also enjoy three days of half work and half pleasure. I've been on the Council for the whole of these nine years and so was Gordon Wilson and for most of the time Walter Baetjer. We have tried to select men who would be interested and I believe with considerable success. It would be a pity to have all this work spoiled. We will talk it over further in Washington. Judging from the work you've done already, I believe you are the one to be secretary and I hope that you will not let the irritations that have come up make you refuse. Maybe you will learn to love us if you keep on a little longer. I feel that with the death of Gordon Wilson the future of this society is in a period of crisis and that the next few years will determine whether or not it will continue.

This letter of Hamman's was a reply to one of Rackemann's, who on March 11 had stated: "The trouble with Minot and me is: first, that we both belong to too many societies; and second, that we have not been brought up in the Climatological so that we can appreciate that this society is quite different from other medical societies and that it has an atmosphere of good fellowship or even affection which is somewhat different.

In another letter to Hamman, on April 7, Rackemann went further: "Please don't misunderstand my letter of March 11. I'm perfectly ready and willing to become secretary. Indeed, my election is a distinct honor. You, on the other hand, must remember that at the present time I am acting as secretary only because I happen to be a close friend of the president. While he thinks I'm alright, I'm not at all clear that the society as a whole will agree, or, more important, I'm not at all convinced that I am the best man." In the end, of course, Rackemann accepted, and his acquiescence proved to be an important milestone in the history of the Climatological: Rackemann became the symbol of the organization and probably did more than any one man to bring it to its current state of success.

The mid-1930s were a time of change for the Climatological, but it is particularly fortunate that some of Minot's views did not eventuate. In a confidential letter to Rackemann in 1934, Minot pointed out that the Climatological shared many joint members with the Association of American Physicians (approximately 33 percent). He wondered if the Climatological could not do more to avoid competition with the Association and suggested the possibility that the Climatological shift its meetings from the fall to bring them into close association with the meetings of the American Physicians. Indeed, he suggested that it might be worthwhile to hold the meetings on the same day in adjacent hotels and to seek cooperation between the societies. "I think the character of the meetings is definitely satisfactory. The round table conference is good. The thing I object to is the fact that a good deal of time is given to playing golf. A medical meeting of one or two days is enough. Let there be medicine in the morning and afternoon and free time after 5 o'clock. It is a mistake, I am sure, to extend the meeting beyond two days. I also believe it is a mistake for a serious medical meeting to have too much time devoted to golf. I do not doubt there are many men who like to go for what I call the social aspects and the golf, but can a national medical organization exist for that purpose . . . I suppose that there are more men interested in disorders of the lungs than any other topic. It would be unfortunate, I think, to make the organization purely one that specializes in disorders of the lung. It should be an organization for internal medicine. The presentations should be practical and of the same character as appeared on the program this year. We want first class clinical papers." If some of Minot's views had prevailed, the whole character of the Association would have changed: it might never have achieved its current success as a family meeting, with wives in attendance, and the opportunities for informal exchange and recreation would probably not have been realized.

THE "CLIMATOLOGICAL AT ITS MID-CENTURY": A SUMMARY

Dr. T. Grier Miller summarized the first 50 years of the Climatological, along with its objectives for future successful development:⁶

Originally interested primarily in the study of climatology and hydrology in their relationship to disease, the Climatological Association naturally selected health resorts for most of its meeting places: Richfield Springs, New York; Hot Springs, Virginia; Lakewood, New Jersey; Niagara Falls; Maplewood, New Hampshire; and Fortress Monroe, Virginia. Although later, as the Climatological and Clinical Association, it was less concerned with the effects of environmental conditions, it continued to seek for its meeting places such isolated communities as the Seaview Golf Club, The Princeton Inn, White Sulphur Springs, Skytop Lodge,

and Hershey. Its membership has been made up largely of medical teachers, most of them from large urban centers, but the Association has always tended to avoid the rigidity of the medical school and the formality of congested areas. This custom has persisted probably because the members' interests were broader than that of purely scientific medicine. A perusal of its programs will disclose that medicine as a science has not been neglected, but, in addition, the Association has appreciated the humanistic and cultural aspects of medical activities, the value of social contacts among its members and their wives, of relaxation from the clinic and the laboratory, and of communion with nature in open, quiet places. For the first half of its existence, the Association devoted itself largely to a consideration of climatology, hydrology and mineralogy in their relationship to diseases of the respiratory and circulatory organs. In their formal presentations during that period, the members vied with each other in stressing the natural advantages of their respective communities, whether mountainous regions, inland retreats or seaside resorts. In the early *Transactions* one finds many papers devoted to the natural beauty of the landscape and the healthgiving qualities of the climate, soil, and waters of almost every section of the country and of many foreign resorts: Southern California; Tidewater Virginia; Point Pinelos, Florida; Roan Mountain, North Carolina; Southwestern Texas; the Pine Belt of New Jersey; the Evergreen Forests, and the Mediterranean of the United States—Pass Christian, Mississippi. Many of the descriptions afford fascinating reading and almost persuade one that a sojourn in any of these places is all that is required for a cure from any disease.

Colorado finds first place among the descriptions, both in the quality and the quantity of laudation. At one meeting, in 1887, three papers were devoted entirely to the climatic virtues of the Centennial State, two to those of Colorado Springs. One of the latter, accompanied by fifteen elaborate tables, gives specific data on the atmospheric conditions in the sunshine and in the shade for each hour of the day and each month of the year, on wind direction and velocity, and on rainfall. To quote from Dr. Solly's paper on the "Invalid's Day in Colorado":

After a night in which there has been a hard frost and a clear sky, with a light breeze from the north, and during which the invalid has usually slept soundly under several blankets, with his window partly open, he wakes up to find the sun shining into his eastern window. . . . After breakfast, our invalid steps into the street, being then in an atmosphere in which the heat in the sun is 92° F. and in the shade 30° F. A gentle air is stirring from the northeast at the rate of eight miles an hour. The mean dew point is 18.

As the day proceeds the temperature rises to its highest point, between 2 and 3 p.m., being 100° in the sun and 40° in the shade, while the wind, which has veered rapidly from the north to the south, blows with its highest daily velocity, of thirteen miles an hour. After 2 p.m. the wind works back again toward the east, being at

sundown northeast, and continuing as darkness falls, to shift back to the northern quarter, whence it blows from 8 p.m. to 9 a.m., its velocity dropping to between seven and eight miles an hour; the temperature of the air at the same time falling from three to four degrees.

Thus it was clear why so many victims of tuberculosis wound up in Colorado Springs.

The first address before the Association, in 1884, was delivered by Dr. F. I. Knight, of Boston, in the absence of the president, Dr. A. L. Loomis. He discussed the "Art of Therapeutics" and stated that for thirty years the medical practitioner had been "absorbed in the pleasure and satisfaction of exact diagnosis to the detriment of the art of therapeutics" and that, as a result, the public had suffered. To correct this, he advocated a study of climate, the construction of better hotels and more attention to the food supply. Dr. Loomis was continued in office and the next year urged a concerted study of the value of localities, including their mineral springs, for the cure of respiratory diseases. In 1886, Dr. William Pepper, the second president, presented an exhaustive 80-page paper on the temperature, soil and winds of Pennsylvania, with extensive colored maps and charts.

In those early days of the Association, one third of the deaths in active middle life were due to tuberculosis, and naturally primary attention was being given that disease. At the meeting in Denver, Dr. Denison stated that climate, with reference to pulmonary disease, was more important than any other therapeutic measure. Thus we can understand the enthusiasm of the membership at that time for climatology as a therapeutic measure.

The first question raised about the efficacy of climatic therapy appeared in the Presidential Address of Dr. E. Fletcher Ingals, of Chicago, in 1897, entitled "The Antiseptic Treatment and the Limitation of Climatic Treatment of Pulmonary Tuberculosis." Subsequently, papers began to appear on other aspects of tuberculosis and on other subjects, some rather unusual, as was a presentation by Dr. William Duffield Robinson, of Philadelphia, on the "Climatology of Nudity."

At the meeting in Los Angeles in 1902, Dr. Norman Bridge first called attention to the impropriety and dangers of sending some tuberculous patients to distant resorts, away from family and friends and without funds for proper shelter and food; of the substitution of opinions and guessing for facts; of the suggestion of advertising in some of the papers, and of placing blind faith in climate.

Dr. James C. Wilson, of Philadelphia, first declared in 1904 that the field of climatology was too narrow for the Association and favored an expansion of interests, but at the same time commented on the importance of a maintenance of good fellowship in the organization. The next

year Dr. W. F. R. Phillips, of Washington, insisted on a more scientific approach to medical problems and on laboratory investigation of the physiological effects of heat and moisture. Dr. Thomas Darlington went even further in his Presidential Address, insisting on a broad study of all public health problems.

Thus the way had been prepared for the courageous presentation by Dr. Charles L. Minor of Asheville who in 1913 reviewed the developments in medicine since the origin of the Association, thirty years previously, especially with reference to tuberculosis, and insisted on: 1) a change in name to "The American Climatological and Clinical Association, or better, the American Clinical and Climatological Association"; 2) a discussion of all topics of general clinical medicine; and 3) the admission of members on the basis not only of good fellowship but also of their accomplishments and promise for the future.

Dr. Minor's program was accepted, and the name became the American Climatological and Clinical Association. This action, however, was probably not enthusiastically received by all the members, because in the next two presidential addresses reference was made to the special importance of climatology in therapy. Nevertheless, after that time one finds in the presidential addresses an insistence on a more scientific attitude and an appreciation of the necessity of dealing with patients on the basis of their individual circumstances. Dr. Henry Sewall stated that in the end the chief service of the practicing physicians was "that of a comforter." In his suggestions for the benefit of the Association, Dr. Lawrason Brown, in 1920, called for more vision, a careful reporting of scientific observations, friendly but frank criticism of new ideas and the selection for membership of young men with personality and the spirit to think and write. Always emphasis was placed on the clinical bearing of the Association's work, its therapeutic value, and in this connection mental, moral and social factors were not neglected. Dr. Edson, of Denver, thought that having the meetings in various smaller places tended to influence the practical character and the human personal quality of the Association's work.

Then about 1923, because of the emphasis that was being placed on laboratory work in diagnosis, some criticism of medical teaching began to appear in the presidential addresses. Dr. Charles W. Richardson, of Washington, insisted that laboratory results should be regarded as supplementary to, and not as a substitute for, purely clinical medicine. Dr. Gordon Wilson, and later, Dr. George Morris Piersol, urged more attention in teaching to the elemental clinical procedures, to personal observations on the patient himself and to reasoning, and less to so-called accessory diagnostic procedures. Dr. Joseph Pratt struck a somewhat different and prophetic note in his address of 1928: he urged that, in order to prepare men for careers in academic medicine, they be retained

in the hospitals after their internship on a full-time pay basis, dividing their time between the laboratory and the ward—the system now generally in vogue. Always, however, no matter what was being discussed in the meetings of this Association, special emphasis was given to the importance of seeing patients and of rendering a service to them, of being human and sympathetic in all personal relationships. Dr. David R. Lyman characterized the qualities of the Great Physician as simplicity, sympathy, keen intelligence and love of fellowman.

In 1931, as a result of the new emphasis on clinical medicine as a whole and because of the varied interests of its members, Dr. Darlington moved that a committee be appointed to consider again changing the name of the organization, and he suggested "Clinicians" or "Clinical Society." Dr. Piersol, then the president, appointed Drs. Gordon Wilson, Darlington, Stone, Trudeau and Webb as the members of such a committee, and the next year it was agreed to change the name to its present one—which was, incidentally, the name preferred by Dr. Minor 10 years earlier.

In one very fundamental respect the character of the members and the spirit of the organization have never changed. From the beginning there have been three leading objectives: to bring relief to the sick, to cure disease, to increase the joy of living. In other words, the members have steadfastly been interested primarily in the "art of therapeutics," about which Dr. Knight talked in 1884. That objective explains the enthusiasm about climatology, about better living conditions for the sick, about improvements in the therapy of heart and lung diseases, about better education for the doctor and about a broader viewpoint for the organization. In that connection one speaker after another has urged that in the selection of new members we seek those of good character, of broad training and of human understanding; that we continue to keep the group small and have meetings in isolated, quiet places; and that the older men strive to help the younger ones understand the importance of kindness, sympathy, and generosity in their dealings with patients.

Rehabilitation as we now understand it could be considered an outgrowth of the original aims of our predecessors as they sought a change of climate, better food and housing and a more cheerful outlook of their patients. The efforts of the psychiatrists today are perhaps merely more formal and more scientific applications of the principles involved in the appeal that the true physician be a comforter, a companion and a solace to the sick. The activities of social service departments, of welfare agencies, indeed, of group practice and of community hospital care are simply modern methods of accomplishing for the patient what previously came about more naturally and simply through a lifetime acquaintance with his hereditary and domestic background.

Chapter 8

GROWTH AND STABILITY: THE SECOND HALF-CENTURY BEGINS

THE FIFTY-FIRST ANNUAL MEETING

The fifty-first annual meeting, held May 21–23, 1934 in Toronto under the presidency of Charles D. Parfitt,¹ was the last to take place before the change in the time of meetings to the fall. There were a number of new members who participated in the program that year, including Howard F. Root, who talked on diabetic coma and pulmonary tuberculosis; Chester S. Keefer, who discussed the pleural and pulmonary complications of carcinoma of the esophagus; Robert A. Cooke, whose presentation was entitled “Asthma in Relation to Sinus Disease”; and C. Sidney Burwell, who discussed his observations on the output of the heart and the pressure in the veins of pregnant women.

THE FIFTY-SECOND ANNUAL MEETING

The football schedules having been appropriately checked to avoid conflicts, the fifty-second annual meeting was held October 21–23, 1935 at Princeton, New Jersey under the presidency of Walter R. Steiner.² An important event was the death of James Cornelius Wilson on October 28, 1934 at the age of 87. He was a former president of the Association and the last of its original members, and a suitable memorial was presented. Wilson received his A.B. from Princeton in 1867 and two years later his A.M. He was graduated from Jefferson Medical College in 1869. When in 1873 he entered the practice of medicine, he showed his interest in the academic as well as the clinical side by promptly affiliating himself with the department of medicine at Jefferson, where he was made chief of the medical clinic. He soon became chief clinical assistant to that master clinician, Professor J.M. Da Costa, whom he succeeded to the chair of the practice of medicine and clinical medicine at Jefferson. In 1897 he became physician-in-chief to the Lankenau Hospital, where he was closely associated with the great John B. Deaver. He was also a member of the Association of American Physicians.

President Steiner gave an interesting talk entitled “Reminiscences of Sir William Osler as My Teacher and of My Hospital Experiences Under Him at Johns Hopkins.” One of Steiner’s stories about Osler (originally related by J.H. Pratt) was the following: “He always had a quiet dignity about him which repelled a certain type of familiarity. One day as our class was leaving the ward, a patient in a bed near the door called out, ‘Good morning, Doc.’ Dr. Osler made no reply, but when we reached the

corridor and was out of the man's hearing he stopped, and turning to us, said, 'Beware of the men who call you Doc, they rarely pay their bills.'

Among the group of young clinicians who took part in the meetings that year were Howard F. Root, Ralph H. Major, Cyrus C. Sturgis, William D. Stroud, Paul D. White, L.W. Gorham, Robert L. Levy, John T. King, James S. McLester, Chester S. Keefer, William S. McCann, Henry M. Thomas, Jr., Charles W. Wainwright, William B. Porter, John Walker Moore, J. Murray Kinsman, and Russell L. Haden. One of the classic papers, by Louis Hamman and Arnold R. Rich, described a new entity called "diffuse interstitial fibrosis of the lungs."

THE FIFTY-THIRD ANNUAL MEETING

The fifty-third annual meeting was held in Richmond, Virginia on October 26, 1936 under the presidency of L. Whittington Gorham.³ At the dinner on Tuesday night, Dr. Douglas Southall Freeman, editor of the *Richmond News Leader* and author of an outstanding biography of Robert E. Lee, spoke on "Pain in American History." The physical pains endured in civil as well as in military life, the scarcity of ether, the infection of every wound so that entrance to a hospital meant that death was highly probable if not certain—these things involved pain that was very real. Mental pains were almost as bad. Almost every personal letter written before and, of course, during the Civil War, had references to illness, to anxiety, and to distress, although never to despair. The people in those days were a tough, hardy lot. Dr. Freeman's description was vivid and most illuminating—a remarkable presentation.

On Wednesday the group saw Williamsburg, stopping en route at Yorktown and Jamestown. The secretary commented:

In each place is preserved quite enough of remains and relics to amplify and illustrate the written histories and so to give a clearer picture of what transpired. No wonder Captain John Smith almost starved on Jamestown Island. No wonder that Cornwallis, driven to the end of a peninsula in Chesapeake Bay, was forced to surrender. The house in which the terms were arranged by General Washington is still standing.

The Reverend W.A.R. Goodwin told us of the beginnings of the Williamsburg restoration. How Mr. Rockefeller was so fascinated by the possibility that he began to buy and to give until now nearly \$14 million has been expended. And it is all worthwhile. At first, the visitor is disappointed. The houses are set apart from each other; the greens are ordinary fields; but soon he appreciates the meticulous care, the infinite attention to detail which has been applied. The result is most interesting. In 1700 the people of Williamsburg lived well, at least, the gentle folk did. The Governor, appointed by the King, lived in a palace which was a palace. The capital was beautiful in its appointments just as the jail was dreadful in its obvious cruelty.

In Bruton Parish Church, we saw that George Washington, when in town for the assemblies of the Court of Williamsburg, sat in a front pew. He stayed in the Wythe House down the street a little. The Curtis family occupied the fourth pew back. They

lived in a white house across the street. Here was romance at its best and it was quite fascinating to consider that we, standing on the steps of the church, saw now much the same view as George and Martha together before their marriage in 1759.

To be in Williamsburg is almost to feel the life as it was in colonial days, nearly 200 years ago. Once again the extracurricular activities of the "Climatological" taught us something worthwhile.

This meeting also saw the passing of two eminent members and former presidents of the Association. James M. Anders⁴ was born on July 22, 1854 at Fairview Village, Montgomery County, Pennsylvania. He graduated from the medical school of the University of Pennsylvania in the class of 1877, a group that furnished to Philadelphia alone such well-known teachers as Francis X. Dercum in neuropsychiatry; Matthew N. Cryer, the great oral surgeon; Henry F. Formad, the brilliant pathologist; John H. Musser, the outstanding internist of his day; and George M. Piersol, the anatomist. The year Anders graduated in medicine, he also received his Ph.D. and a prize for his thesis, "The Transpiration of Plants." His original investigations led to his discovery that flowering plants are natural generators of ozone. After nearly a decade of research along these lines, he published in 1886 a volume entitled "House Plants as Sanitary Agents; or, The Relation of Growing Plants to Health and Disease," which led to international recognition. Anders's chief interest, however, was centered in the problems of internal medicine and public health. In 1890, he was elected to the chair of hygiene and pediatrics, and two years later the chair of clinical medicine was created for him by the Medico-Chirurgical College of Philadelphia. In 1893, he became professor of the theory and practice of medicine and clinical medicine. From 1914, he was a member of the Board of Health of Philadelphia. Anders was very active in bringing about the merger of the Medico-Chirurgical School with the University of Pennsylvania, which resulted in the present Graduate School of Medicine at Pennsylvania. He took an active part in the development and direction of this school. In 1916, he automatically became professor of medicine in the Graduate School, but after a few years retired from this position. As a well-merited reward for his achievements in medicine, public health, civic betterment, and literature, Anders was made a Chevalier of the Legion of Honor of France in 1923. In 1928, he received the Sc.D. degree from the University of Pennsylvania. He was a member of the Association of American Physicians, was president of the American College of Physicians in 1922, and in 1923 was made a Master—the first fellow of the college to be thus honored.

In early life, it was Henry Sewall's good fortune to work with two great physiologists—Michael Foster in England and Carl Ludwig in Germany.⁵ Sewall received his Ph.D. under Newell Martin at Johns Hopkins in 1879 at the time when Martin was doing his famous experiments on perfusion

of the coronary arteries in the mammalian heart. Pondering Jenner's vaccination, Pasteur discovered that the inoculation of attenuated organisms of chicken cholera resulted in immunization. Pondering Pasteur's publications, Henry Sewall was led to investigate the possible immunization of pigeons to rattlesnake venom. First determining the minimal fatal dose, Sewall successfully immunized pigeons in 1887 to this poisonous protein by repeated inoculation of subminimal doses. These experiments were recognized throughout the world as the foundation on which the development of antitoxins was built. Physicians from all parts of the world have stood in reverence before the tablet erected at Ann Arbor to commemorate the experiments of Henry Sewall when he was professor of physiology at the University of Michigan.

Sewall resigned from this position when he developed tuberculosis. He moved to Colorado where he not only conquered this affliction, but also a bad bout with typhoid fever, during which he developed rib necrosis. He became an M.D. of the University of Denver in 1889 and for many years he was an inspirational part of the research department of the National Jewish Hospital.

To have been president of the Colorado State Medical Society, of the National Tuberculosis Association, of the American Climatological and Clinical Association, and of the Association of American Physicians; to have been the recipient of the Kober Medal of the Association of American Physicians and of the Trudeau Medal of the National Tuberculosis Association—such are honors that few physicians can attain. Born in Winchester, Virginia on May 25, 1855, Sewall died from coronary thrombosis in Denver on July 8, 1936.

Again the program showed evidence of the infusion of young internists interested in clinical investigation. Benjamin M. Baker gave an excellent discussion of the arthritis of bacillary dysentery. Frederic M. Hanes presented his work on the low blood sugar curve of sprue. "The Natural History of Rheumatic Fever and Rheumatic Heart Disease" was the topic of a talk by Edward F. Bland and T. Duckett Jones. Mark D. Altschule and Herrman L. Blumgart presented their work on the circulatory dynamics in tricuspid stenosis and insufficiency: their significance in the pathogenesis of edema and orthopnea. Paul D. White, G. Kenneth Mallory, and Jorge Salcedo-Salgar discussed the speed of healing of myocardial infarcts, and Chester S. Keefer gave an excellent description of tuberculosis of the pericardium. Finally, Alphonse R. Dochez of New York described for the group his excellent studies on the pathogenesis of influenza and of the common cold.

THE FIFTY-FOURTH ANNUAL MEETING

The fifty-fourth annual meeting, which was held in Baltimore, October 11, 12, and 13, 1937, under the presidency of James E. Paullin⁶ of Atlanta,

Georgia, was an outstanding success. As evidence of the beneficial effects of the effort to expand the scientific interests of the Association and to bring in new members with not only a broad interest in internal medicine, but an interest in clinical investigation as well, the attendance record had been broken for four consecutive years; 120 members attended this meeting in Baltimore. The Belvedere Hotel was very comfortable and the meeting room excellent. Dr. and Mrs. Henry M. Thomas, Jr. invited the Council to meet at their home on Sunday night. On Monday, Dr. and Mrs. Louis Hamman had the entire Climatological as their guests at dinner and entertained them handsomely. On Tuesday, all went to lunch at the Maryland Club as the guests of E.C. Andrus, C.R. Austrian, G.A. Harrop, Albert Keidel, J.T. King, Lay Martin, and T.P. Sprunt. Meanwhile, other Baltimore hosts invited various members to teas, either at home or in one of the social clubs before the Monday and Tuesday dinners. The tea was *very* good.

This was the first year of the Gordon Wilson Lectureship.⁷ Dr. Warfield T. Longcope, professor of medicine at The Johns Hopkins University School of Medicine, was introduced by Dr. James S. McLester. McLester spoke well of Gordon Wilson and his large part in the development of the Climatological into a national society of internal medicine, and of Dr. Longcope as a longtime thorough student of the kidney and its diseases. The lecture was delivered in the easy, straightforward style of the master. The Association's membership was pleased with the Lectureship and with its first speaker.

On Tuesday afternoon, the staff of Johns Hopkins presented a scientific program in which W.G. MacCallum, E.L. Burky, L.C. Kolb, Francis F. Schwentker, Perrin H. Long, and E.K. Marshall, Jr. participated. The program was given in the Hurd Amphitheatre—new, beautifully proportioned, thoroughly gadgeted, gorgeous.

At the annual dinner, Hugh Kinghorn sang *Alouette* and Paul Ringer rendered *Casey at the Bat* better than ever before, if such be possible. After the coffee, Louis Hamman said that if one man told another exactly how much he loved him the latter would think either that the former was crazy or that he had some sort of gonadal abnormality; and so with a "reverse" introduction, he presented Judge Morris Soper. "All right," said the Judge, "but don't forget that one of my best decisions was to choose Louis Hamman for my doctor." Judge Soper confessed that good manners on the part of the witness were apt to influence the judicial mind—as did bad manners. He talked at considerable length about the Lewis resolution and the high-handed manner in which the senator from Illinois would regiment the doctors and force them to practice medicine as Congress would dictate. Everyone was enormously pleased with Soper's remarks.⁸

The subject of Paullin's Presidential Address was the country doctor and his contribution to science. Most interesting was his story of the introduction of ether by Crawford Williamson Long, born on November 1, 1815 near the town of Danielsville, Georgia. His father, a prosperous planter and man of considerable means, was most desirous that his children be well educated. After this preliminary education, he entered Franklin College, now the University of Georgia at Athens, from which he graduated with second honor in 1835. Long taught school for a year and then began to read medicine under Dr. Grant in Jefferson, Georgia. In 1837, he attended Transylvania College in Lexington, Kentucky. He then entered the medical department of the University of Pennsylvania, graduating the following year. The next 18 months were spent walking in the hospitals and studying surgery in New York City. In August 1841, Long returned to Jefferson to practice. While a student at Pennsylvania, he became familiar with the effects of ether, which he had seen given to individuals by "chemists" to produce exhilaration and mild intoxication. In November 1841, he introduced "ether frolics" in the town of Jefferson and on occasion inhaled ether himself. He observed frequently that individuals under the influence of this drug received injuries of a minor nature of which they remembered nothing. On March 30, 1842 at his office in Jefferson, Long administered ether by inhalation to James Venable; as soon as Venable was anesthetized Long removed a tumor from his neck, the first painless operation in surgery ever performed. Long said that he operated as soon as Venable had received sufficient ether to make him insensible to pinprick. As an inducement to Venable to be the subject of such an experiment, Long made a charge of \$2.00 for the operation and \$.25 for the ether. In 1845, at the birth of his daughter, later to become Mrs. Frances Long Taylor, Crawford W. Long administered ether to his wife during labor. Long has been criticized for not having published his observations shortly after they were made; however, when one realizes the conditions under which he lived, many miles from a railroad, with the demands of an extensive rural practice, with horseback his only means of transportation, with few physicians anywhere at hand, and with a limited knowledge of medical journals, it is not difficult to understand his neglect in seeking recognition.

Again at the Baltimore meeting many of the bright young clinical investigators presented their work, including Willard B. Soper of Yale, A. Carlton Ernestine of Cleveland, Marshall N. Fulton of Providence, Joseph T. Wearn of Cleveland, Howard B. Sprague of Boston, Thomas M. Rivers of New York, and Henry D. Chadwick of Boston, who discussed the Massachusetts Pneumonia Program. This study had two objectives: the evaluation of pneumonia serum under the conditions of the general practice of medicine, and the development of plans for the distribution

of this serum for the treatment of those patients who might reasonably be expected to benefit from its use. It thus embraced problems of scientific research as well as of administrative procedures. The development of such a program, looking forward to the eventual statewide distribution of pneumonia serum, was recognition of the fact that even though a health department may be unable to prevent the spread of certain infections, it can nevertheless do much to reduce the resultant loss of life. One of the items on the program at this Baltimore meeting was the presentation by E.K. Marshall, Jr. and Perrin H. Long of their studies on the sulfonamides, a paper that illustrated well the progress of medicine. After the enormous amount of hard work that had gone into the development and use of serum in the treatment of pneumococcal pneumonia, the work of Drs. Marshall and Long was soon to be followed by a new and very effective treatment of pneumonia with sulfapyridine, thus largely negating all of this earlier effort.

THE FIFTY-FIFTH ANNUAL MEETING

The fifty-fifth annual meeting was held on May 2, 3, and 4, 1938 in Atlantic City, with Alphonse R. Dochez⁹ as president. This return to the May dates was occasioned by the joint meeting with the Congress of Physicians and Surgeons. The session was marked by a memorial on behalf of Lawrason Brown,¹⁰ who had died during the year. Brown was among the first to see the need for a change of policy for the Association. As related earlier, at the Washington meeting in 1922 he gathered together a small group of enthusiastic members, in which he expressed the belief that the need for such a society as the Climatological then was had passed, but that its friendly and helpful spirit should be preserved; that the papers should embrace broader clinical subjects than those only of special interest to men living in health resorts; and that new members should be selected from workers in every field of clinical medicine.

Brown graduated with honors from the Johns Hopkins University in 1895 and the next year entered the Johns Hopkins University School of Medicine, where his abilities were soon recognized by Drs. Osler and Welch. In his third year, he developed tuberculosis and was sent to Saranac, where he attracted the attention of Dr. Trudeau; a close friendship developed between them. At the end of a year there, he returned to Johns Hopkins, receiving his medical degree in 1900. He then returned to Saranac to take charge of the Adirondack Cottage Sanitarium. Trudeau's health had begun to fail and he was immensely relieved to find a man into whose hands he could surrender the medical department of the sanitarium. In his autobiography, Trudeau said: "The methods were crude, the discipline imperfect, the records incomplete. The simple efficient rules of discipline, the thorough instruction of physicians, nurses

and patients, the accurate medical reports and the exhaustive post-discharge records of all patients since the institution started all sprang into life as a result of Dr. Brown's insistent efforts for efficiency and continued progress." It was these records that allowed Brown to publish his early papers, which successfully combatted preconceived ideas of tuberculosis based more upon impressions than critical analysis. He started the *Journal of Outdoor Life* and edited it until it was taken over by the National Tuberculosis Association. He was also the organizer of the Stevenson Society of America for the collection of Stevensoniana and the preservation of the cottage at Saranac that Louis Stevenson occupied in 1887. While resident at the sanitarium, he organized the research laboratory in which the work on immunology was done by Petroff, and the x-ray department where, with Sampson, the early diagnosis of intestinal tuberculosis was accomplished. The degree of doctor of science was conferred upon him by Dartmouth in 1931 and by the Medical College of Virginia at Richmond in 1936. He was awarded the Trudeau Medal in 1933.

The second Gordon Wilson Lecture, given by Henry A. Christian of Boston, was entitled "A Glomerular Dominance in Bright's Disease." One of the outstanding papers was by W. Osler Abbott and T. Grier Miller, who discussed their method of intestinal intubation and its diagnostic and therapeutic value in the study of intestinal obstruction.

THE FIFTY-SIXTH ANNUAL MEETING

The fifty-sixth annual meeting was held October 9-11, 1939 at Saranac Lake, New York, under the presidency of Alvah H. Gordon.¹¹ Notable on the program was a paper on circulatory failure in bilateral pneumothorax with high intrapleural carbon dioxide by Dickinson W. Richards, Jr., André Cournand, and Robert L. Yeager. The Gordon Wilson Lecture was delivered by George R. Minot, his subject being the anemias of nutritional deficiency.

There were 77 members present at the Saranac meeting. The scene of the meeting was at the Trudeau Sanitarium, where the new recreation building, with its attractive simplicity and its stage, was ideal. The elder statesmen of tuberculosis research were present and Francis B. Trudeau gave a short talk on the history and the work of Trudeau Sanitarium. Later the group inspected the monument to Edward Livingston Trudeau, noting the inscription on the back of it: "Guérir Quelquefois—Soulager Souvent—Consoler Toujours" (Fig. 20). Fred Heise chaired a symposium of five papers describing the current work at Saranac. In the evening the group motored with the ladies 15 miles to Lake Placid, where at the famous club they dined.

After the Tuesday morning papers, a group photograph was taken (Fig.



FIG. 20. Francis B. Trudeau standing beside the monument to his father, Edward Livingston Trudeau

21). Lunch was at Ray Brook as guests of the Ray Brook Sanatorium, with Harry A. Bray as host. The afternoon was overcast and rainy, but many took the trip up the Whiteface Mountain Highway, six miles of which was built as part of a W.P.A. project.

Dr. Gordon presided at the dinner and noted: "A clinician is a doctor who has acquired wisdom in the evaporation of his learning." After speeches by Price, Thomas and Bordley and then from an honorary member—Edward W. Archibald of Montreal—an expert in thoracoplasty, the group retired to the "lower regions." There, Hugh Kinghorn sang *Alouette* and the "Prickly Heat Quartette" gave a brilliant performance.

THE FIFTY-SEVENTH ANNUAL MEETING

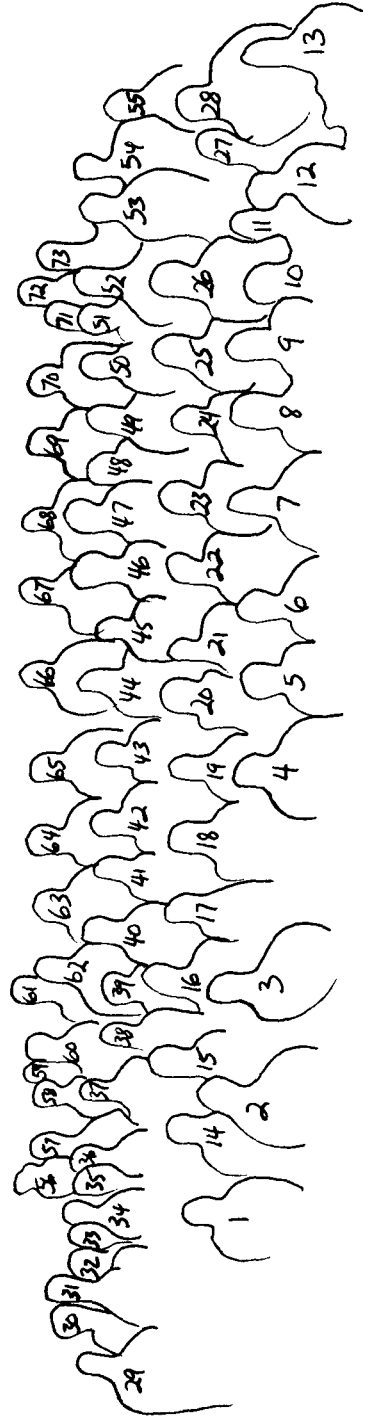
The fifty-seventh annual meeting was held at the Greenbrier under the presidency of Dr. William B. Porter¹² of Richmond, Virginia, from October 28 to 30, 1940.

The Council addressed the problem of new candidates for membership. It was felt that younger men were more desirable than older men; the younger men are more productive and so would contribute much to the Society, and they in turn would learn and profit greatly by their membership. The older men might have a greater influence on the Society for a short time and in certain instances these older men would attract the younger, but one should be quite sure that any older man elected would be good enough to attract the younger men who would come later. There was no rule against the election of a surgeon, a pediatrician, or a roentgenologist, and in many ways it might be quite a good idea to have members of these other specialties included in the membership. Doubtful points concerning operations, children or x-ray abnormalities might be passed upon by the expert on the spot. There was much to be said in favor of electing specialists.

On the other hand, the policy thus far had been to choose internists almost exclusively and it was agreed that the list was satisfactory and that the meetings successful without specialists. The gist of the discussion was that if a man interested in a specialty other than internal medicine was chosen, one should make sure that his training and his point of view were broad enough to allow him to understand and appreciate all the problems of internal medicine.

One of the honorary members who died during the year was Sir Wilfred Thomason Grenfell,¹³ born in England in 1865. After graduation from the London Hospital, he carried a Bible in his shiny new medical kit. For the next five years he lived and worked among the fishermen of the North Sea, cruising with them from the Bay of Biscay to Iceland, establishing homes for them and providing missionary and medical services at sea.

Thus, it was not mere chance that placed him on board the 90-ton trawler *Albert*, which put out for Labrador in 1892. The young doctor,



only 27 years old at that time, had found his calling, and the chance to help others by this trip was appealing indeed.

Fifty years passed and during all that time, until the day of his death, Sir Wilfred labored to realize his opportunity. First with the help of a few friends, later with the help of men and women of good will everywhere, he built hospitals, schools, churches, orphanages, and stores in Labrador. He brought healing and light to an almost forgotten people. By Christian kindness, unceasing devotion and skillful organization, he helped build an empire. As the editor of the *Boston Evening Transcript* wrote: "By becoming a grizzled Labrador fisherman, striving humbly, he made himself figuratively and literally a plumed Knight."

The Gordon Wilson Lecture was given by Rollin T. Woodyatt on the "Theory of Diabetes"—an area of research in which he had made many notable contributions in the pre-insulin era. "Splenectomy in Hemolytic Jaundice" was the topic addressed by Russell L. Haden, and Chester S. Keefer, Lowell A. Rantz and Charles H. Rammelkamp talked on the subject of "Hemolytic Streptococcal Pneumonia and Empyema." Russell L. Cecil discussed "Gold Therapy in Rheumatoid Arthritis," a form of treatment then only recently introduced.

THE FIFTY-EIGHTH ANNUAL MEETING

The fifty-eighth annual meeting was held at Skytop Lodge in northern Pennsylvania from October 16 to 18, 1941, with James J. Waring¹⁴ as president. Although the Lodge is off the beaten track, there were 108 members and 36 wives present. When James J. Waring went to Colorado in 1908 because of tuberculosis, his Aunt Minnie Waring tried to find a

FIG. 21. Members of the American Clinical and Climatological Association, Saranac Lake, N.Y. October 9, 1939 (Courtesy, The National Library of Medicine). 1- Alpheus S. Jennings, 2- William B. Porter, 3- John N. Hayes, 4- Richard A. Kern, 5- Chester M. Jones, 6- A. Carlton Ernstene, 7- Francis M. Rackemann, 8- James Bordley III, 9- Wyndham B. Blanton, 10- Hugh A. Farris, 11- Francis C. Wood, 12- John B. Youmans, 13- Charles R. Austrian, 14- Lorne C. Montgomery, 15- Nathaniel K. Wood, 16- Francis B. Trudeau, 17- Jabez H. Elliott, 18- Hugh M. Kinghorn, 19- George R. Minot, 20- Alvah H. Gordon, 21- Edward R. Baldwin, 25- Thomas Darlington, 26- L. Whittington Gorham, 27- John Minor, 28- Ernest B. Bradley, 30- Laurence K. Lunt, 31- J. Woods Price, 32- David T. Smith, 33- Charles C. Wolferth, 35- James D. Trask, 37- Rudolph H. Kampmeier, 38- Richard P. Stetson, 39- Walter S. McClellan, 40- Charles W. Wainwright, 41- Chester S. Keefer, 43- J. Burns Amberson, Jr., 44- W. Osler Abbott, 45- Charles H. Cocke, 46- John Walker Moore, 47- Howard B. Sprague, 48- Henry B. Mulholland, 49- Paul D. White, 50- Thomas T. Mackie, 51- James M. Faulkner, 52- Joseph Earle Moore, 53- Henry M. Thomas, Jr., 56- James J. Waring, 60- John B. Barnwell, 61- Grant Thorburn, 62- George H. Lathrope, 64- F. Janney Smith, 65- T. Grier Miller, 66- Staige D. Blackford, 67- Marshall N. Fulton, 68- Donald S. King, 70- William D. Stroud, 71- John R. Paul, 72- Edward N. Packard, 73- James P. Baker, Jr.

place for him to stay. The Antlers Hotel in Colorado Springs finally agreed to accept him if he would promise to use the freight elevator.¹⁵ Waring recovered his health and became professor of medicine at the University of Colorado and a national figure in internal medicine.

On Friday evening the members and wives had cocktails together before their separate dinners. The dinner was noisy at first so that the Secretary had difficulty in making an announcement. In the middle of this effort, the new Secretary developed a violent and quite unsympathetic attack of hay fever. When order was restored a very special ceremony took place. Dr. Jabez H. Elliott had had a gavel and base made for the Climatological and he presented it in a very gracious speech. On the base is inscribed:

“This gavel and base are made of wood from the house in which Sir William Osler was born, Bond Head, Canada west, July 12, 1849.” And on the gavel:

“Presented to the American Clinical and Climatological Association by Jabez H. Elliott, 1941.”

The President’s Address was on “The Anatomy of Angling,” on the importance of getting away once in a while to appreciate the beauties of nature and enjoy the rest that only natural surroundings can provide. The Gordon Wilson Lecture was presented by Alfred Blalock, who spoke on “Shock or Peripheral Circulatory Failure.”

At this meeting James Bordley III was installed as the fifth Secretary of the Climatological. Rackemann’s last minutes ended as follows: “The old secretary retires with mixed feelings. He has enjoyed his work immensely. He has made mistakes, but he has seen many changes. The Climatological is a real group of friends and its members are active in every sense. He hates to lose his contact with so many gentlemen who are scholars and with scholars who are gentlemen.

“On the other hand, he knows that new blood is brighter and more active than old. He congratulates the new secretary with all his heart. He knows well what work is to be done, but he knows also that with it will come new opportunities and new contacts which will be invaluable. He hopes and expects that the officers and members will be kindly and considerate toward Jim Bordley as they have been toward himself.”

On December 5, 1941 a postscript was added by ex-president James J. Waring, which read as follows:

This is Frank’s last report, as secretary. The friendly nature of these reports, as well as their factual content, have made them most welcome. We hope for their continuation under the new regime.

At the close of our business meeting Maurice Pincoffs rose in his place to move a vote of thanks to our retiring secretary. I am sure that Frank was touched by the tribute of a rising vote of thanks and the spontaneous burst of applause which followed. In acknowledging it, he showed what all of us have long known, that his heart was in his job.

A little boy put an ostrich egg in the hen house where his bantam chickens nested and above the egg a sign read: "Keep your eyes on this, banties, and do your damndest."
Verbum sap! Bordley!!

THE WAR YEARS

During the four years of World War II, from April 1942 to 1946, James Bordley III returned the duties of secretary to Francis Rackemann. Rackemann composed a report on the wartime activities of the members of the Association, distributed announcements regarding the deferments of the annual meetings, corresponded with the officers and councilors, kept the role of the Association up to date, and did many other things to stimulate interest in the Climatological and to keep its members informed. No formal meetings of the Association were held in the years 1942, 1943, 1944, and 1945. On May 28, 1946 a special meeting of the Council was held in the Marlborough-Blenheim hotel in Atlantic City. It was attended by Drs. Rackemann, Bordley, Dochez, Gordon, Porter, Miller, Waring, and Mackenzie. In the absence of Dr. Burwell, who was then on a special mission in China, Dr. Rackemann presided.

THE FIFTY-NINTH ANNUAL MEETING

It was decided to hold the fifty-ninth annual meeting at the Hotel Hershey in Hershey, Pennsylvania, October 21-23, 1946, under the presidency of Dr. C. Sidney Burwell.¹⁶ The president had arranged a program which called for presentation of scientific papers during the morning hours only. This was the first time the afternoons were left entirely free for other activities.

Louis Hamman died in 1946, and a memorial to him appeared in the *Transactions* of that year's meeting. Louis Hamman was a warm, intelligent, and able clinician. His greatness lay in his uncanny ability to gather clinical facts, organize them effectively, arrive at the correct diagnosis, and thus have the best basis for the management of the patient's problem. The best of his work emphasized prognosis based on correct diagnosis, which he summed up in a 1938 paper in the *New England Journal of Medicine* on "The Diagnosis of the Causes of Heart Failure": "The aim of medical practice is the prevention and cure of disease. Its highest accomplishment is prognosis; its foundation is diagnosis. The function of diagnosis is to direct and guide treatment."

Hamman was born in Baltimore, Maryland, in 1877. He received his M.D. degree from Johns Hopkins in 1901, after which he joined the resident staff of New York Hospital. He returned to Baltimore in 1903 as head of the new Phipps Tuberculosis Clinic, the first special clinic established at the Johns Hopkins Hospital. With Samuel Wolman, Hamman undertook a series of investigations on the use of tuberculin in

the diagnosis and treatment of tuberculosis. This pioneer work on the clinical use of tuberculin was ultimately published in a book entitled *Tuberculin in Diagnosis and Treatment* (Appleton, 1912).

Hamman saw a report in 1913 on the hyperglycemia following a normal individual's ingestion of starchy foods which suggested to him that with "the use of a similar method to study carbohydrate tolerance, perhaps the character of the curve might be altered in different diseases and the tests therefore yield important data." The principle of the glucose tolerance test was clearly delineated by Hamman in 1916 and he described the blood sugar response to a second dose of orally administered glucose several years before Staub and Traugott, who are generally credited with this observation. The present-day concept of the glucose tolerance test is credited to work by Janney and Isaacson first reported in 1917 and published in April 1918, a year after Hamman's paper appeared.

Hamman made many important clinical descriptions of disease. He reported the first case of extracardiac endarteritis due to infection of an arteriovenous aneurysm. Hamman's diagnosis on the basis of the presence of positive blood cultures without a cardiac murmur led to the removal of the AV aneurysm and cure of the patient's bacteremia. He also described Hamman's disease—spontaneous mediastinal emphysema—and the famous clinical entity known as the Hamman-Rich syndrome.

For a year during World War I Hamman was acting head of the department of medicine at Johns Hopkins. He was truly the clinician's clinician. He died in 1946 of coronary thrombosis.¹⁷

The Gordon Wilson Lecture was delivered by Dr. René Dubos on a subject particularly interesting to the older members of the Climatological. It was entitled "The Experimental Analysis of Tuberculous Infections." John B. Youmans described his outstanding work in the assessment of nutrition. Chester M. Jones discussed the diagnostic and therapeutic value of liver biopsies, and Julian M. Ruffin reported his experiences on the role of vagotomy in the treatment of peptic ulcer. Among the papers dealing with war experience was one by Maurice Pincoffs on health problems in Manila; and another by James Bordley III on observations of an epidemic of primary atypical pneumonia in the United States Army in Australia. The after-dinner talks were given by General Hugh J. Morgan and Colonel Henry M. Thomas, Jr., who related their experiences in the Medical Corps during World War II.

THE SIXTIETH ANNUAL MEETING

The sixtieth annual meeting was held in Colorado Springs from October 13 to 15, 1947, under the presidency of T. Grier Miller¹⁸ of Philadelphia. Many of the members and their wives made the round trip

from the East on two special Pullman cars, thanks to arrangements made by the president. On the first night out of New York, while the Pullmans were attached to the Broadway Limited, an axle of one of the cars broke and the undercarriage caught on fire. The train was brought to an abrupt stop and the occupants of the damaged car had to leave their berths. They assembled in the diner, where they foraged for food and drink while a new car was being brought from Pittsburgh. In spite of this mishap, the trip on these special cars was one of the most pleasant features of the meeting and prolonged the time from the usual three days to seven (Fig. 22).

In his Presidential Address, President Miller gave an interesting account of some of the highlights of previous meetings (See p. 115). Cecil J. Watson gave a very scholarly Gordon Wilson Lecture entitled "Some Aspects of the Porphyrin Problem in Relation to Clinical Medicine."

Monday was a beautiful day and in the afternoon some of the members played golf, while others took motor trips to the mountains in private

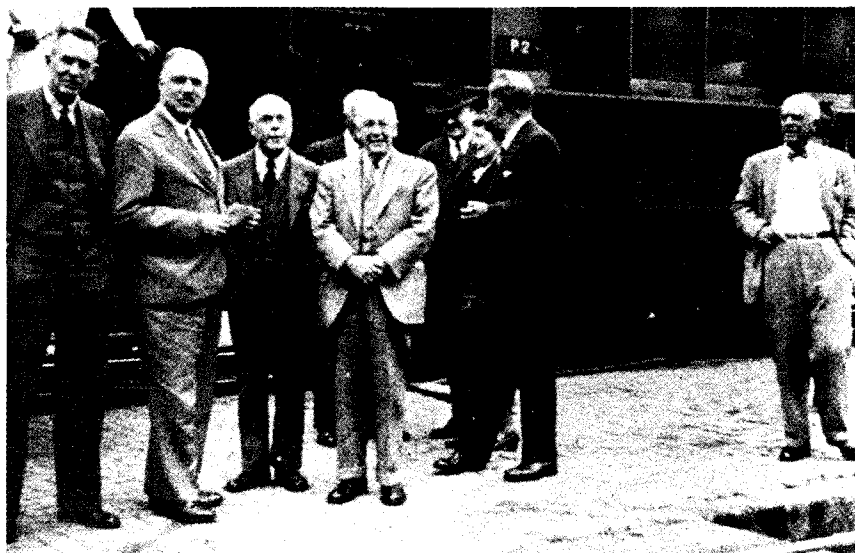


FIG. 22. On the trip to Colorado Springs, October 1947. 1- Walter Burrage, 2- Henry Dunham Hunt, 3- Nathaniel Wood, 5- Joseph Pratt, 9- Russell Cecil

cars driven by the Colorado members and their wives. At least two cars made an attempt to get to the summit of Pike's Peak but found the road blocked by snow at 12,000 feet. During dinner, the group was entertained by the Koshare Indian Dancers. The dancers were members of Boy Scout Troop 230 of La Junta, Colorado. On Tuesday afternoon Dr. and Mrs. Miller were hosts at a cocktail party held in the Cheyenne Mountain Country Club, which Gerald Webb informed the group was the second oldest country club in the United States, antedated only by the Brookline Country Club. Following the banquet, Chester Jones gave an account of his recent trip to Austria and Southern France, which was illustrated by colored lantern slides.

A memorial was read for Edward R. Baldwin¹⁹ of the Medical Group at Saranac Lake, upon whom the mantle of Dr. Trudeau fell in 1915. Baldwin graduated from Yale Medical School in 1890 and was in general practice in Cromwell, Connecticut when he developed tuberculosis and went to Saranac Lake. When he told Dr. Trudeau that he had diagnosed his own case by the finding of tubercle bacilli, a sympathetic chord was struck, starting a friendship that deepened during the years that these two great figures of the anti-tuberculosis movement worked together.

Trudeau, self-taught in the comparatively new science of bacteriology, said that up to that time he had nobody with whom he could discuss his work and that neither he nor Baldwin knew very much about what they wanted to do. What they accomplished in the field of tuberculosis, far from any medical center and both with impaired health, is now a matter of medical record.

Baldwin was appointed assistant and later director of the new Saranac Laboratory after fire demolished the original one. He was also elected to the chairmanship of the Executive Committee of the Trudeau Sanatorium after the death of Dr. Trudeau. In 1916, he inaugurated the Trudeau School of Tuberculosis, which attracted students interested in the fight against tuberculosis from nearly every state in our nation and from many foreign lands. In the same year, in collaboration with Dr. Walter B. James of New York City, he established the Edward Livingston Trudeau Foundation, an endowment for research in tuberculosis, and as director was largely responsible for the excellent work accomplished.

His work attracted international attention and in 1910 he was elected president of the Climatological. Baldwin was one of the founders of the National Tuberculosis Association and was later its president. He was awarded the Master of Arts degree by Yale in 1914, the Trudeau Medal in 1927, the Kober Medal of the Association of American Physicians in 1936, and the degree of Doctor of Science by Dartmouth in 1937.

The excellent scientific program was highlighted by the following presentations: "Brucellosis: Specific Therapy in Patients Having Bacteremia," by Wesley Spink and his collaborators; "Some Clinical and

Pathological Features Observed in Sarcoidosis," by A. Murray Fisher; "The Treatment of Thyrotoxicosis with Goitrogenic Compounds," by Edward Rose; "The Role of Potassium in Severe Diabetic Acidosis," by William M. Nicholson; and "A Clinical and Electrocardiographic Study of Paroxysmal Ventricular Tachycardia and its Management," by George R. Herrmann.

THE SIXTY-FIRST ANNUAL MEETING

The sixty-first annual meeting took place in Hot Springs, Virginia from November 8 to 10, 1948, with Francis M. Rackemann in the chair. The total attendance at this meeting (187, including wives) was a record. The formal social functions began on Monday evening with the president's cocktail party, followed by a dinner to which wives and other guests were invited. After dinner Dr. Rackemann showed lantern slides of photographs that had been taken at past meetings of the Climatological. Dr. Pratt and other emeritus members were drawn into the discussion to identify former members. After the members' dinner on Tuesday evening, Dr. Rackemann called on various emeritus members to give brief talks. Woods Price gave an amusing account of past events aided by the entries in a fictitious memory book. In addition to the more formal talks, stories were told by a number of the members. Dr. Nat Wood acted out an amazingly vigorous story in dialect. Dr. Walter Martin seemed to have an inexhaustible supply of highly amusing stories about the Old South. At the conclusion of the banquet, the members joined their wives for dancing in the ballroom.

Memorials were read for two very distinguished members of the Association at this meeting. James Alexander Miller²⁰ was president of the Association in 1914. His medical degree was awarded by the College of Physicians and Surgeons in 1899. He spent the early summers of his medical career in association with Dr. Trudeau, which gave him a lasting inspiration in the fight against tuberculosis. He helped organize the New York Tuberculosis and Health Association and the National Tuberculosis Association, serving as president of the former from 1920 to 1929, and of the latter in 1921 and 1922. He also served as visiting physician in charge of the tuberculosis service and professor of clinical medicine at Columbia-Presbyterian Medical Center. In addition, he was president of the American College of Physicians (1935-36) and of the New York Academy of Medicine (1937-38). He received the Trudeau Medal of the National Tuberculosis Association in 1944, and was elected Chevalier of the French Legion of Honor in 1918 following his service in the American Red Cross. He held honorary degrees from Princeton, Columbia, and New York universities.

Gerald Webb²¹ died suddenly on January 27, 1948. Born in Cheltenham

ham, England, he studied medicine at Guy's Hospital, London for three years, then came to the United States in 1893, where he received his M.D. from the University of Denver in 1896. After postgraduate work in Vienna, he worked in the laboratory of Sir Almroth Wright of London (an honorary member of the Climatological), where he became interested in opsonins and vaccines. Returning to Colorado Springs, he established a private research laboratory there. He believed that a real immunity to tuberculosis could be produced only by the inoculation of virulent, live tubercle bacilli, and only a long series of experiments on guinea pigs, calves and monkeys, and finally a few children convinced him that even the use of tiny, counted, slowly increasing numbers of virulent bacilli was dangerous and not feasible for the prevention of the disease. At the Colorado Foundation for Research in Tuberculosis, which he established in 1924, he initiated and—with Dr. Charles Boissevain—supervised an extensive study on the vaccination of monkeys with BCG. In 1914 he introduced pneumothorax treatment to the West, and showed by ingenious gas analyses that air could well replace the nitrogen previously used in this procedure. He was president of the Climatological, the National Tuberculosis Association, and the Association of American Physicians.

In his Presidential Address, Rackemann discussed human relations in general, and the doctor-patient relationship in particular. He pointed out that advantages and opportunities beget obligations and responsibilities. "The Climatological is good now; it must stay good always. Take in men who are working in different fields, and who are successful, but study the character of the candidate carefully so as to keep standards high."

The Gordon Wilson Lecture was delivered by Hans Selye on the "General-Adaptation Syndrome." A number of new members who were active clinical investigators presented papers, including: "Pernicious Anemia and Related Anemias Treated with Vitamin B₁₂," by Edgar Jones and W.J. Darby; "Some Preliminary Observations on the Neuromuscular and Ganglionic Blocking Action in Man of Bis-trimethyl-ammonium Decane and Pentane Diiodide," by A. McGehee Harvey and David Grob; "Potassium as a Therapeutic Agent," by John E. Howard and Richard A. Carey; "Recent Studies on Capillary Permeability," by Eugene M. Landis; "Studies on Pituitary Adrenal Relationships," by George W. Thorn; and "The Mechanism of the Postgastrectomy 'Dumping' Syndrome," by Thomas E. Machella.

THE SIXTY-SECOND ANNUAL MEETING

The sixty-second annual meeting was held at the Greenbrier Hotel, October 27-29, 1949, under the presidency of Maurice C. Pincoffs.²² Guests at the meeting were Professor and Mrs. John McNee of Glasgow,

Scotland, and Mr. and Mrs. Blanchard Randall of Baltimore. Mrs. Randall was an authority on the old homes and gardens of Virginia and after the first night's dinner, she gave an illustrated lecture that included many lovely pictures of the old places. Dr. Joseph E. Smadel, who delivered an interesting Gordon Wilson Lecture on "The Changing Status of the Rickettsioses," also spoke at the members' dinner on the political and social conditions in Malaya. Jim Baker, medical director at the Greenbrier, showed the group through his new, beautifully equipped, and very well-organized medical clinic.

Pincoffs, in his Presidential Address, bemoaned the fact that the medical schools in recent years had directed their resources mainly to research and specialization, to the neglect of producing general practitioners. He argued that the medical schools in recent years isolated themselves too completely from the medical problems of their communities and the nation. He felt that if the faculties of our schools accepted and acted upon the principle that the objective of postgraduate training in their hospitals and clinics was not solely to reproduce their likes but also to train men for the specific demands of general practice, a first vital step would be taken to regain a more normal balance between the different parts of our medical organization. Not only would some of the damage done to the prestige of general practice be repaired, but such specially trained men would in time enlarge again the proper field of general practice to the great benefit of both economy and efficiency in medical care. It is regrettable that those in high academic places did not heed this early warning of what was ultimately to be a critical national problem in medical care.

Among many excellent scientific papers, the following were outstanding: "Clinical Application of the Artificial Kidney," by George W. Thorn and John P. Merrill; "The Clinician and the Chemistry of Serum Proteins," by Roy H. Turner; "Studies on the Relationship of Treponemal Antibody to Probable Biologic False Positive Serologic Test for Syphilis," by Charles F. Mohr, Joseph Earle Moore, and Robert A. Nelson; "Chronic Pulmonary Granulomatosis of Beryllium Workers," by George W. Wright; "Observations on the Effect of Adrenocorticotrophic Hormone (ACTH) on Disseminated Lupus Erythematosus, Drug Hypersensitivity Reactions, and Chronic Bronchial Asthma," by A. McGehee Harvey, John E. Howard and Walter L. Winkenwerder; and "Whipple's Disease: Its Relationship to the Rheumatic State," by Rudolph H. Kampmeier.

Lewis J. Moorman of Oklahoma City gave a very interesting and valuable discussion of "Early Medicine at the White Sulphur Springs."

THE SIXTY-THIRD ANNUAL MEETING

The sixty-third annual meeting was held at the Red Lion Inn in Stockbridge, Massachusetts, from October 16 to 18, 1950 under the

leadership of John T. King,²³ (Fig. 23) of Baltimore. The sun shone brilliantly and many members devoted their afternoons to golf and tennis, but others made use of the excellent map and directions provided by Dr. Terhune to visit the points of historic interest in the Stockbridge area. The total attendance broke all past records, with 208 present, including wives and guests of members. On Sunday afternoon, Dr. and Mrs. Terhune gave a cocktail party in the Red Lion Inn for the early arrivals, and Dr. Longcope invited a number of his former associates to his nearby home in Lee for cocktails on Tuesday afternoon. At the annual banquet, Dr. Howard Rusk, who was chairman of the Health Resources Advisory Committee of the National Security Resources Board, gave an excellent informal talk on the procurement of medical personnel for the military forces with particular reference to the doctor's draft. Several of the past



FIG. 23. John T. King, (Courtesy of Dr. Theodore Woodward)

presidents made a few remarks, after which lighter forms of entertainment were provided by a group of Boston members who had been given their assignments by Dr. Fremont-Smith, the chairman of the Entertainment Committee.

Marshall Fulton was elected to succeed James Bordley III as secretary-treasurer. Upon motion of Dr. F.D. Adams, duly seconded and approved, the president was requested to instruct the secretary to write a letter to himself expressing the appreciation of the Association for his many years of service. Pursuant to this resolution, the secretary reported the following official correspondence:

Dear Mr. Secretary:

With a feeling of schizophrenic frustration it is my sad but pleasant duty to inform you that the Climatological has seen fit to replace you as secretary-treasurer and has voted that you turn over the paraphernalia of your office to one Marshall Fulton. You have had your fun and troubles, and it is high time that you should give another member a chance.

At the business meeting held on October 18, 1950, Denny Adams proposed a resolution (and I quote from the official stenographic transcript) "that the President instruct the Secretary to write himself a letter expressing the appreciation of this group for his many years of very fine service." This proposal was greeted with (again I quote the official transcript) "applause" which the President saw fit to interpret as approval of the resolution "by acclamation. . ."

In answer to the foregoing letter, the following reply was received:

Dear Mr. Former Secretary:

I wish to acknowledge your letter of recent date informing me of the action taken at the "business" meeting of the Climatological.

I do, indeed, accept with great satisfaction, the expression of appreciation transmitted rather grudgingly in your note. You no doubt view my performance as Secretary with some misgivings and in that I would concur. Nevertheless, I take great pride in having held office in what I consider to be the finest association of clinicians in the country. In the course of my tour of duty I have established many valued friendships and I turn my affairs over to the worthy hands of Marshall Fulton with the realization that I have gained far more than I have given.

Would you please transmit to the members of the Climatological and especially to the Presidents under whom I have served, my sincere thanks for their cooperation and enthusiastic support. . .

Respectfully,
James Bordley III,
The Former Secretary

Thus the formalities of changing the secretaryship of the Association were carried forth in good humor, and another outstanding individual, whose service to the Climatological cannot be overestimated, was installed—Marshall Nairne Fulton.

King delivered the Presidential Address in which he presented a belated appreciation of James Hope, the great English cardiologist. Then William B. Terhune, medical director of the Silver Hill Foundation, New Canaan,

Connecticut, and associate clinical professor of psychiatry at Yale presented a fascinating talk on "Medicine in an Intellectual Climate"—a most interesting discussion of the medical history of the Berkshires, which proved to be similar to that of most frontiers.

A memorial was presented for one of the Climatological's most distinguished members—George Richards Minot,²⁴ who died on February 25, 1950. George Minot graduated from Harvard College in 1908 and received his M.D. from the Harvard Medical School in 1912. He was house medical pupil at the Massachusetts General Hospital and then spent a year with Dr. W.S. Thayer and one with Dr. William H. Howell at Johns Hopkins, where he first developed his interest in diseases of the blood. When he returned to Boston in 1915, Dr. Edsall gave him a laboratory at the MGH and his interest turned to transfusions, splenectomy for pernicious anemia, and the hemorrhagic diseases. Attempts to determine if some sort of dietary deficiency could be found in pernicious anemia began at about that time. In 1921, he developed diabetes and with the expert management of Elliott Joslin, he survived, to find great relief in the arrival of insulin in 1923. In 1928, Dr. Francis W. Peabody, the beloved chief of the new Thorndike Memorial Laboratory died and George Minot succeeded him. His interest spread to the effect of iron in hypochromic anemia and to the reasons for the iron deficiency. Other deficiencies of intake were studied, namely, pellagra and beri-beri.

The first paper on the liver diet appeared in the *Journal of the American Medical Association* on August 14, 1926. Pasteur had written: "... *le hazard ne favorise que les esprits préparés.*" George Minot had been thinking and reading about diet. He was impressed with the observations of Dr. George H. Whipple on hemoglobin regeneration in anemic dogs following the feeding of liver. He was fortunate in having an enthusiastic patient who liked to eat liver; and he had a hard-working, devoted assistant, Dr. William P. Murphy, who measured the red cells and the reticulocytes to prove the direct effect of the special diet. Thanks to George Minot's prepared mind, the significance of the experiment was appreciated.

In the next few years a potent fraction of liver was made by Dr. Edwin J. Cohn at the Harvard Medical School. More important, Dr. William B. Castle (an honorary member of the Climatological) discovered the "intrinsic factor" of the normal stomach essential to the process of blood formation. In 1934, Minot received the Nobel Prize in Medicine and Physiology. The accounts of the Minot pilgrimage to Stockholm with Mrs. Minot and daughters Marian and Elizabeth, and with Dr. and Mrs. Richard P. Stetson as "Private Physician and Secretary," to receive the prize at a colorful ceremony make a thrilling story. To consider that a new major contribution to the health of all mankind had been made by

a man whose life had been saved by a previous contribution made in the "nick of time" was dramatic indeed. As president of the Climatological in 1933, his address ended with this sentence: "To teach the art of courageous living is often the chief prescription for the patient with chronic arthritis." If ever a man practiced the art of courageous living, it was George Richards Minot.

The meetings had their lighter side also. James Faulkner and Walter Burrage, whose nominee for membership, James A. Halsted, had been elected, decided to send him a telegram of congratulations. When it arrived, having been garbled by Western Union, it read as follows: "Your clinical climb illogical."

There were many worthy scientific presentations, some of the particularly outstanding ones being: "Relation of Control of Diabetes to Vascular Degeneration," by Howard F. Root and Alexander Marble; "The Effect of Cortisone on the Clinical Course of Chronic Regional Enteritis and Chronic Idiopathic Ulcerative Colitis," by Thomas E. Machella; "Reversible Uremia with Hypercalcemia," by F. Dennette Adams and George W. Thorn; "Chronic Disease in an Aging Population," by Howard A. Rusk; "Cat Scratch Fever," by Chester Keefer; and "Observations on Subtotal Adrenalectomy in Hypertension," by F.D.W. Lukens, C.C. Wolferth, William A. Jeffers and Joseph H. Hafkenschiel.

THE SIXTY-FOURTH ANNUAL MEETING

The sixty-fourth annual meeting was held November 5-7, 1951 at the Skytop Lodge, Skytop, Pennsylvania, under the presidency of John Minor.²⁵ On Monday evening, members and wives had cocktails and dinner together followed by dancing. A near-crisis provoked by Pennsylvania election-day restrictions was averted on the second evening through the invaluable help of Dr. F.T. Billings, Jr. Dr. Billings, with able assistance and adequate coaching, was able to provide from State Stores that which was needed in preparation for the Association banquet. The banquet will be long remembered for four highlights. The first was the attendance of the ladies at the after-dinner entertainment. The second was the rendition of *Alouette* performed in the bass by H.M. Thomas, Jr., and in the treble by Dr. André Cournand. The third was the presidential address by Dr. Minor—a delightful tribute to this father, Dr. Charles L. Minor, who was president of the Association in 1913. The fourth was a memorable discourse on "Fox Hunting in the Modern Age" by Dr. Yale Kneeland, Jr. Those who have heard Robert Benchley can imagine how entertaining this was when told in the best Benchley tradition.

Cyrus C. Sturgis presented a memorial on the death of Henry Asbury

Christian,²⁶ who was an honorary member; C. Sidney Burwell one on James Edgar Paullin,²⁷ who had been president of the Climatological in 1921; and Rudolph H. Kampmeier one on Edgar Jones²⁸ of Nashville, who had been a member only since 1947.

The Gordon Wilson Lecture was given by André Cournand on "Clinical and Physio-pathologic Considerations in Certain Types of Pulmonary Granulomata and Fibroses."

The scientific program was up to the now-expected standards of the Climatological, with excellent discussions by F.D.W. Lukens on "Studies on the Metabolism of Alloxan"; by Warde B. Allan on "The Benefit of Respiratory Exercises in the Emphysematous Patient"; by S. Howard Armstrong, Jr. on "Private Patients in Medical Teaching"; by Cyrus C. Sturgis and Frank H. Bethell on "The Use of ACTH and Cortisone in the Treatment of Hematological Disorders"; by C. Sidney Burwell on "Respiration and Circulation in Pregnancy"; by John Eager Howard and Thomas B. Connor on "Studies on Calcium Transport and the Mechanisms of Calcium Homeostasis"; and by Carl Muschenheim and Walsh McDermott on "The Therapy of Miliary and Meningeal Tuberculosis."

THE SIXTY-FIFTH ANNUAL MEETING

The sixty-fifth annual meeting was held at the Mark Twain Hotel in Elmira, New York from October 16 to 18, 1952, with Chester M. Jones²⁹ in the chair. The question had been whether to meet in Corning, New York where hotel accommodations were too scanty, or in Elmira, which was selected.³⁰ Fair autumn weather prevailed and there were 86 active members in attendance, 9 emeritus members and 73 wives. The highlight of the meeting was the Gordon Wilson Lecture given by Dr. Joseph Stokes, Jr., who presented a comprehensive view of his work and that of his associates in the field of viral hepatitis. On Thursday afternoon, the membership visited as guests the Corning Glass Company and the by-then famous Corning Glass Center where they saw Steuben glass in the making and finishing. The social activities on Friday afternoon were unique. Through the resourcefulness of President Jones and the gracious interest of W.C. Emerson, manager of the Mark Twain Hotel and the Elmira Chamber of Commerce, a glider demonstration was organized at Harris Hill in suburban Elmira, one of the important gliding centers of the world. The event was preceded by a box lunch, picnic style, at the field club house where members were briefed in the science and art of gliding and invited to volunteer for a ride. No one contested the place in the plane requested by the president and everyone sighed with relief when he and the others were once more safely on the ground. On Friday evening the members and the wives dined separately, the latter joining the former after dinner for a delightful evening of member-provided

entertainment. Coke Andrus gave a charming rendition of ballads, catches, and laments done with just the right inflection, burr and brogue. Between his two groups of songs, Charles S. Davidson gave, with colored slides, an even more colored discourse of his recent travels to Japan. It was a red-letter evening giving testimony to the varied talents of the membership and their ability to amuse themselves and their colleagues. Some of the members and their wives made trips to the wine industries at Hammondsport or to Watkins Glen.

During this year, the Association lost one of its distinguished members with a close tie to William Osler—Charles Daniel Parfitt.³¹ Even in his boyhood, respiratory infections frequently interrupted his school work, and partly with the object of improving his health, he was sent to the famous Trinity College School at Port Hope, Ontario (the school that his later teacher and friend, William Osler, had also attended in his boyhood). He then entered Trinity Medical School in Toronto and served for two years as an intern at the Toronto General Hospital. This was followed by two years of study at St. Bartholomew's Hospital in London, where he made rounds frequently with Archibald Garrod, then the registrar, who later followed Osler as Regius Professor at Oxford. Later, while working with A.A. Kanthack, professor of pathology at Cambridge, he met William S. Thayer, then Osler's resident physician, who invited him to visit the medical clinic of the Johns Hopkins Hospital. During his visit late in 1897, he came under the spell and stimulus of Osler's "magnetic personality." There was no opening in Baltimore at the time, but a fortnight later Osler wrote him offering the opportunity to do research and clinical work in tuberculosis; this position was made possible by a special fund to which Osler was probably the chief contributor. Parfitt spent one and one-half years in Baltimore, where he followed Osler on ward rounds and twice served as a substitute on the resident staff. He admitted later that the clinical work appealed to him so strongly that it diverted him from his research.

A short while after leaving Baltimore in December 1899, he was stricken with tuberculous pleurisy; he had probably been infected while working in Baltimore, where a shockingly large number of students developed the disease, including John B. MacCallum and Lawrason Brown, both of whom were in the class of 1900. Parfitt continued to make his life's work in the field of tuberculosis, doing fairly well until 1906, when he had a severe breakdown. He went to Saranac to take the tuberculin treatment then held in high regard. Afterwards, he continued to work in sanitariums for the treatment of patients with tuberculosis. He was one of the first on this continent to employ artificial pneumothorax and to refer cases to the pioneer in thoracic surgery, Dr. Edward W. Archibald of Montreal, for thoracoplasty (see Fig. 15). As early as 1913 he stood almost alone in maintaining that prolonged bedrest yielded the

highest percentage of recoveries in pulmonary tuberculosis. Throughout his career, which lasted until his 79th year, Osler was his model. In spite of the whips and stings of outrageous fortune, Osler's influence, to use Parfitt's own words, "created opportunity, influenced ambition, provoked endeavor, spurred to achievement."

In his Presidential Address, Chester Jones pointed out that *clima* is derived from the Greek verb meaning "to slope" or "incline". The word was used by the Greeks to designate the supposed slope of the earth toward the pole, or to indicate the inclination of the earth's axis. It originally meant latitude, and seven latitudes or climates were recognized. A change in climate meant a change in latitude. Gradually it came to mean a change in atmospheric conditions, as well as a change in the length of the day. A recent dictionary definition of the word provides two meanings: 1) "the average condition of the weather at a given place over a period of years;" and 2) "the trend of fundamental concepts and attitudes pervading a community, nation or era; as a change in intellectual or moral climate."

Weather is defined as the state of air or atmosphere with respect to heat or cold, wetness or dryness, calm or storm, clearness or cloudiness—an episode or a single occurrence in the series of conditions that make up climate.

In the daily weather reports, one reads of cold fronts, warm fronts, stationary fronts, and occluded fronts. These are standard meteorological terms used to describe varying episodes in a given climatic zone. Further terms also deserve mention. Trade winds are dependable, predictable winds, blowing steadily in one direction. The temperate zones, lying between the tropics and the frigid zones, are also known as the variable zones. The doldrums abound in calms, squalls, and light baffling winds. Finally, we are all familiar with the term "wet blanket," which weather-wise refers to fog. Jones said:

You can see that I have been searching for the proper definition of climate and its variations. I believe that all these expressions may be applied to medicine, by merely using the second definition of climate—attitude or inclination. Medical progress clearly is influenced by changes in attitudes. It is quite certain that a stationary front existed for centuries. The term "stationary front" indicates an air mass boundary which shows little or no movement. The authority of Galen constituted a complete block to any change in medical thinking for almost 1500 years. Only an occasional "thermal" appeared for a brief moment to cause any disturbance in the otherwise constant, and in fact rather complacent, atmosphere. Linacre, Harvey, Glisson, Sydenham, Boerhaave, and Hunter represented scattered disturbances of great potential but in a sense corresponded to the significant and recurring phase in current British weather reports,—"scattered showers with *bright moments*." These giants in medicine were, indeed, "bright moments" but individually were incapable of moving the fixed or stationary front of hide-bound tradition. Not until the late 18th century and early 19th century did there come a real break in the weather. Then in France, Germany and England changes occurred and cracks appeared in the solid front of

dogmatism and authoritarianism; Johannes Müller, Henle, and Volkmann in Germany; Reid, Hall and Bowman in England; and especially Bichat and Laennec in France appeared on the horizon as threats to the static phase of medical thinking.

In clinical medicine, Pierre Charles Alexandre Louis broke through traditional methods. . . . and was eventually responsible for the creation of that distinguished school of French physicians whose minute and exact clinical observations laid the basis for much of our present knowledge. American medicine is particularly in his debt through the many students who worked with and were inspired by his warmth and by his encouragement. . . .

From the point of view of medical science, equally important climatic changes were occurring. . . . In 1841, the young physician Claude Bernard was appointed preparateur by Magendie, the then professor of medicine at the Collège de France. At that time, physiological thinking was sharply limited in scope and was overshadowed by studies in morphology. . . . Claude Bernard, however, had the genius to strike on a path by himself. To quote Michael Foster, writing in 1899: "While recognizing the value of experiment as the final test of all physiological views, he, on the one hand, deposed experiment from its false throne to make it the servant and not the master of reasoned speculation; and, on the other hand, extended its domains showing how, under proper use, it could be applied to all phenomena of life." Bernard's brilliant reasoning and careful experimental observations established modern physiology on a sound base. The cold front was broken and investigative medicine entered the latitudes of steady trade winds. . . . The original, but now obsolete, meaning of the word trade [was] that of a track or path. Thus the trade winds were those that consistently followed a given course or trade and so provided dependable and steady progress. . . . At this point scientific medicine had escaped from the doldrums and proceeded into the temperate zones.

Much to his surprise, Jones found that the temperate zones are also classified meteorologically as the variable zones, the implication being one of constantly shifting weather fronts between extremes of heat or cold. Such a climate, though at times exasperating, is undoubtedly, the healthiest for intellectual endeavor and for productive effort. It is not static, and breaks in the weather are of constant occurrence, with the frequent necessity of readjustment to altered conditions. The upheavals of two World Wars temporarily dislocated and finally challenged scientific thought in such a way as to open up new vistas of progress.

Jones continued:

The problem ahead may still involve the question of survival. Continued scientific progress must depend upon the maintenance of medical attitudes that encourage careful, orderly investigation of natural phenomena by fully trained men and women. Friendly but constructive criticism must be available, free of the undesirable pressure for priority or hurried publication. The members of this Association, because of their interests and their own varied experiences, will of necessity be among those who determine the optimum development of proper and equable medical attitudes. Possibly the most important single factor is the guidance and encouragement of younger men. As Osler so aptly put it, we must "walk with the boys." There are a few of us here today who did not start our medical careers in the friendly climate of an older, inspiring, wise physician.

Jones's own experience from 1920 on in his association with George

Richards Minot left no doubt in his mind of the influence of such a relationship on a younger man.

"Progress," Osler said, "is an outcome of a never ending struggle of the third and the fourth decades against the fifth, sixth and seventh. . . . Daily contact with the bright young minds of our associates and assistants is the only safeguard of the teacher."

. . . Medical and social trends are only too apparent as one scans the horizon. New scientific measures for diagnosis and treatment have accumulated at a pace previously undreamed of. Concomitantly the demand for better medical care is the concern of increasing masses of people. There is a tendency, only too apparent, toward the mechanization of practice to the exclusion of a sound doctor-patient relationship. This well may constitute an occluding front. . . . Francis Weld Peabody clearly recognized the dangers of such a climatic change.

Jones's analogy between climate and progress of medicine can be applied very effectively in relating the history of the Climatological.

The rapidly developing scientific climate in the programs of the Climatological was emphasized at this meeting. There was an excellent paper by Thomas Hale Ham, Charles P. Emerson and their collaborators—including William B. Castle—on "Studies in the Mechanism of Hemolysis in Congenital Hemolytic Jaundice." William N. Valentine, John S. Lawrence, William S. Beck, and James H. Folette discussed "The Metabolism of Normal and Leukemic Leukocytes," early work opening up a very important field of research not only for leukocytes but also for red cells. Cecil J. Watson and his collaborators presented a paper on "Experimental Porphyria with Special Reference to its Implications for the Human Disease." Climate still held a place in an excellent talk by John R. Paul on "Climate and Antibodies." His report was both clinical and climatological, being concerned with two varieties of climate—macro and micro. These terms are recognized only by epidemiologists. Macroclimate represents climate in the usually accepted sense; namely, cold or hot weather, dampness, fog, rain, and so forth. Microclimate, on the other hand, is the immediate environment within the patient's home or workshop. It includes good or bad housing, dampness within the home or working place, crowding, inadequate food, as well as all the circumstances of poverty (or affluence), which are usually reflected in housing or working situations. Both kinds of climate exert an effect on the prevalence of disease and concurrently on the development of antibodies to infectious agents. Both have their good and bad features, as Paul pointed out.

THE SIXTY-SIXTH ANNUAL MEETING

The sixty-sixth annual meeting was held at The Homestead, Hot Springs, Virginia, November 2-4, 1953, with Hugh J. Morgan³² in the chair. There were 106 active members present, 13 emeritus members and

97 wives. The Gordon Wilson Lecture was delivered by one of our own members, George W. Thorn, which covered the work of Dr. Thorn and his associates on the adrenocortical response to stress in man. His brilliant discourse was in the best tradition of the Gordon Wilson Lectures.

The weather for the entire meeting was made to order and was coupled with the warmth of hospitality that The Homestead always displays. The Virginia members of the Association were hosts at a delightful cocktail party on Sunday evening. Tennis, golf and horseback riding were favorite sports, as was walking along the various trails around the hotel. The Monday evening cocktail party was followed by dinner for members and wives with dancing. On Tuesday evening the members and wives dined separately but after dinner were reunited to hear a remarkable poetic achievement by William B. Bean. It dealt with the general subject of abdominal navel architecture; its title, "Omphalosophy," displaying again the unusual and hidden talents of our membership. The evening closed with more dancing for some, with singing for others; the latter featured spirituals done incomparably by Dr. and Mrs. Morgan.

Papers on tuberculosis still appeared on the program, including an experimental study by Hugh E. Burke on the pathogenesis of the disease. Roger S. Mitchell and Leonard J. Bristol analyzed 346 cases of intestinal tuberculosis. Dickinson W. Richards, Jr. talked about "The Teaching of Medicine" and W.B. Daniels and F.G. MacMurray presented an interesting paper on "Cat Scratch Disease." F.T. Billings, Jr. discussed "The Induction of Sarcoid-like Lesions by the Injection of Tuberculin." Joseph L. Lilienthal, Jr. discoursed on "The Unity of Pulmonary Circulation and Diffusion of Gases." There were two interesting papers on arteritis; one on the temporal form by Franklin K. Paddock, and one on the diffuse disease by Rudolph H. Kampmeier. Alexander J. Schaffer discussed "Hypertension Treated by Nephrectomy," reporting on four cases.

THE SIXTY-SEVENTH ANNUAL MEETING

The sixty-seventh annual meeting was held at the Lake Placid Club, October 14-16, 1954. The president was Robert L. Levy³³ (see Fig. 17). There was still a good deal of beautiful color on the hillsides and the sun shone during each of the three days of the meeting. Fortunately, the path of Hurricane Hazel across New York State was considerably west of Lake Placid and she rendered only a fringe visit, which came during the late evening hours of the second day. The Gordon Wilson Lecture was delivered by Dr. Allen O. Whipple of Princeton, New Jersey, on "The Circulation of the Spleen in the Living Animal and Its Relation to Certain of the Splenopathies in Man."

The evening before the meeting a cocktail party was held in the Norge

Room of the Club, under the leadership of Mrs. Francis B. Trudeau. On Thursday evening, the members and wives dined together in the main dining room and later danced in the Agra Auditorium. The next evening, following cocktails in the Norge Room, the members and wives dined separately but were reunited after dinner to hear a talk by Theodore L. Badger, with the benefit of colored slides and his own brand of highly infectious humor, about his trip *en famille* to Labrador, where he had served earlier as a Grenfell Mission associate. Dr. C. Sidney Burwell gave an enlightening account of certain historical aspects of circulatory diseases. A very effective solo was sung by Mrs. Roger Mitchell, and there followed a corporate rendition, for the first time in two years, of *Alouette*, incomparably mastered and led by Dr. Hugh M. Kinghorn. On Friday afternoon, everyone was invited to an open house at Trudeau Sanitarium and to tea. The pleasure of this visit was mingled with a feeling of great regret because of the announcement made just a few days before that the sanitarium was soon to be closed. The death was announced this year of two of the outstanding honorary members, Drs. Rollin Turner Woodyatt³⁴ and James Stevens Simmons.³⁵

William Richardson Houston³⁶ died at the age of 81 on August 31, 1953. Will Houston was born on August 28, 1872 in Hangchow, China, the son of missionary parents from Virginia. His early education was in mission schools in China, but he returned to this country to attend Hampden-Sydney College in Virginia, where he graduated with a Master's Degree in 1896. He taught school in Augusta and later entered the Medical College of the University of Georgia, from which he graduated with an M.D. in 1902. He did postgraduate work at the University of Berlin in 1902 and 1903 and returned to the medical faculty at Augusta in 1904, where he remained until 1935, with the exception of the years from 1922 to 1927; during that time, he was professor of medicine at Yale in China at Changsha, returning to Augusta at the beginning of the Chinese Civil War. He retired from academic medicine in 1935, and moved to Austin, Texas to be in a university atmosphere. In Texas, he built up the medical service at Brackenridge Hospital in Austin and became chief of staff.

Houston, along with James McLester and James Paullin, constituted the great triumvirate of Southern Physicians and Gentlemen. They were extremely active members with a record of regular attendance at the Climatological; they were also powers in the Southern Medical Association, and they organized the Southern Interurban Clinical Club. Houston was familiarly addressed as "The Sage of Changsha," "The Professor of Augusta," and "The Philosopher of Austin." He kept up a regular correspondence with John Dewey, the great philosopher, who held him in high esteem. In 1936 Houston wrote *The Art of Treatment*, published by

Macmillan, which was characterized as one of the most literate of medical books in print.

James Somerville McLester³⁷ was born in Tuscaloosa, Alabama, on January 25, 1877, and died in Birmingham, Alabama, on February 8, 1954. He received his B.A. from Alabama in 1896 and graduated from the Medical School of the University of Virginia in 1899. Postgraduate studies were at the Universities of Göttingen and Freiburg in Germany. He returned to Birmingham in 1902 to become professor of pathology at the Birmingham Medical College, where he later became professor of medicine, and began the practice of internal medicine. In 1907-08, he took further postgraduate work in biochemistry in Berlin and Munich and studied under Dr. Friedrich Mueller. After the closing of the Birmingham Medical College, he became associated with the School of Basic Sciences at the University of Alabama in Tuscaloosa and was appointed professor of medicine in 1919. He was instrumental in the organization of the four-year medical school of the University of Alabama, which opened in Birmingham in 1945.

In World War II McLester was chairman of the Subcommittee on Nutrition of the National Research Council. In 1933, he was appointed a member of the Committee on Foods, which was later renamed the Council on Foods and Nutrition, of the American Medical Association. In November 1953, he was awarded the Joseph Goldberger Award for outstanding contributions in the field of clinical nutrition; in receiving his award, he was cited for his important role in translating the results of nutritional research into human values and integrating nutrition into the teaching of all phases of medicine.

In his Presidential Address on "Idiopathic Cardiomegaly," Dr. Levy ended with a personal note:

It has been my good fortune to enjoy, since college days, the friendship of Francis Trudeau. The incident to which I refer occurred when we were first-year medical students at Johns Hopkins and concerns Francis's distinguished father, Dr. Edward L. Trudeau, whose fame and achievement have brought glory to his Adirondack region. Dr. Trudeau had been elected president of the Congress of American Physicians and Surgeons, an organization no longer in existence but then composed of the most prominent members of the profession. The meeting that year was to be held in Washington and, on the way down from Saranac, Dr. and Mrs. Trudeau planned to visit their son in Baltimore. Soon after their arrival Dr. Trudeau, who throughout his adult life was plagued by the bacillus, showed an elevation of temperature. In spite of feeling poorly, he insisted on going on to Washington and I was invited to accompany the family in the role of an aide. It was a proud moment for me who was just beginning his medical studies. But an even greater thrill was experienced on the following day when we sat with Mrs. Trudeau in the front row of the hall while the President, weak and feverish, delivered his address. It was entitled "The Value of Optimism in Medicine." Several months later, a reprint arrived, inscribed simply—"This is to remind you of the evening in Washington. E.L. Trudeau." It is one of my prized possessions.

A few sentences taken from that address, given on May 2, 1910, will make clearer the meaning of the title: "To the practicing physician and surgeon optimism is even more necessary than to the scientist, for besides moulding the doctor's character and guiding him in his decisions as to the case, his optimism is at once reflected to the patient and influences his condition accordingly. How great this influence may be we are learning more and more to appreciate. In his hour of need the patient has no means of judging of the physician's intellectual attainments; it is the faith that radiates from the doctor's personality that he seizes upon and that is helpful to him."

There were, of course, some outstanding papers by some of the new, young, scientifically oriented clinical investigators. It was at this meeting of the Climatological that Joseph H. Holmes and his collaborators presented their very early and pioneering studies in ultrasound in a paper entitled "The Ultrasonic Visualization of Soft Tissue Structures in the Human Body" (Fig. 24). John P. Merrill of Boston discussed "The Excretion of Water and Solutes in Renal Failure," and Elliot V. Newman talked on "Elementary Nephrosis."

THE SIXTY-EIGHTH ANNUAL MEETING

The sixty-eighth annual meeting was held at The Homestead, October 31–November 2, 1955, with Henry M. Thomas, Jr.³⁸ in the chair. There was a total registration of 123 members, with 107 wives in attendance. The Gordon Wilson Lecture was delivered by Dr. John F. Enders of Boston on "Observations on Certain Viruses Causing Exanthematous Diseases in Man," with particular reference to the agent in measles. On the Sunday night before the meetings began, the Nashville members were hosts at a cocktail party in the Virginia Room. On Monday evening the members and wives dined together in the Empire Room and later danced in the ballroom. On Tuesday evening, after cocktails, the members and wives dined separately, thereafter to be united for an hour of entertainment. The pleasure of hearing Hugh and Bobby Morgan is not easy to come by outside of Nashville, but their hour had come at Hot Springs, and with guitar and their happily blended voices, they sang the best of their wonderful repertoire of Southern songs and spirituals. This marked a new high in the revelation of membership talent. There followed an unusual demonstration of how much can be said by how many in how short a time when President Hal Thomas, without even military discipline, kept each of five members to a delightful five-minute discourse—each with an individual and different style: Dr. Joseph H. Pratt, Dr. Chester S. Keefer, Dr. Walter B. Martin, Dr. William B. Porter, and Dr. Yale Kneeland. Following this, Dr. Thomas Klein presented to Dr. Pratt, in honor of his many years as a member of the Climatological, a silver bowl, a gift from some of his devoted friends in the Association.

There were some outstanding papers presented at this meeting. A pioneer one was that of John P. Merrill, J. Hartwell Harrison, Joseph

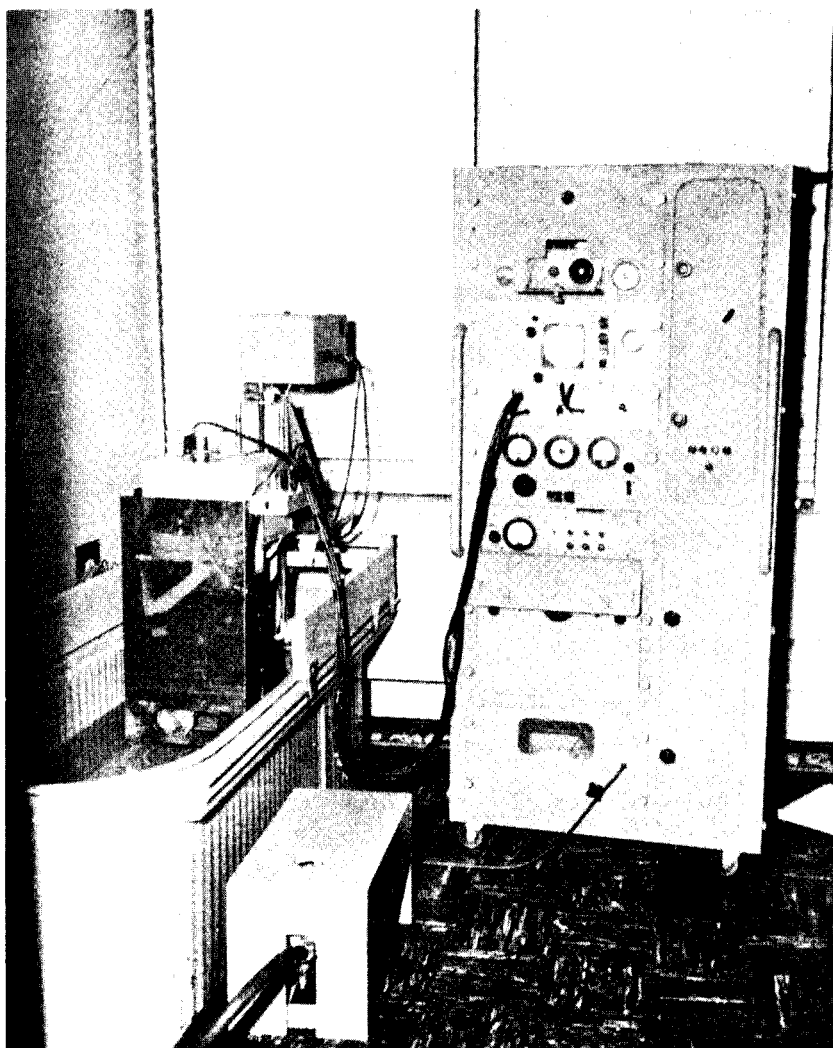


FIG. 24. The somascope—An early instrument for the use of ultrasound, described by Joseph H. Holmes at the 67th Annual Meeting in 1954

Murray and Warren R. Guild on "Successful Homotransplantation of the Kidney in an Identical Twin." Other interesting papers included "Random Notes: Entomological and Climatological" by James J. Waring, who called attention to alveolar leakage as a possible cause of chronic and recurrent pneumothorax, to Brock's use of the term "cuckoo-spit" and its entomological associations, to strange insects found in rose gardens, and finally to the characteristic x-ray appearance of that com-

paratively rare and as yet inadequately explained disorder, pneumatosis cystoides intestinorum hominis!

THE SIXTY-NINTH ANNUAL MEETING

The sixty-ninth meeting was held at Skytop Lodge, November 1-3, 1956. The president was Francis C. Wood³⁹ of Philadelphia. There were rumblings of discontent from some members when it was announced that the 1956 meeting would be held in the Poconos the first week in November. Still green was the memory of snow, ice, and engine-cracking weather among those who had come to Skytop in 1951. But this time it was qualitatively different. Certainly there was rain and fog for those who came early, and for some who went mountain climbing during the three days there was rain. But for everyone there was some fair weather, a sufficiency of warmth and a large measure of happy congeniality. Josh and Ann Billings provided a stirring example of how a member and his bride will get to a meeting no matter how great the obstacles. They were persuaded by a newly immigrated, Italian, New York taxi driver, with a purple cab and a silver tongue, who wanted to get out of the city, to hire him for the drive from New York City to Skytop, Pa. This was their only chance to arrive in time. So after much good-natured haggling they signed up for the journey. After a delightful excursion through the countryside in their "purple taxi," they arrived safely, much to the surprise of President Wood and all the assembled members. The Gordon Wilson Lecture was given by Lee E. Farr on the subject of "Medicine and the Atom and Radiation." On the third evening, after the wives and members had dined separately, they were united for the after-dinner talks. Dr. Wood presided as Master of Ceremonies. He was followed by his fellow Philadelphian, Dr. Edward Rose, whose flow of wit, treasury of humorous stories, and precision tooling of the apt phrase has seldom been equalled behind the after-dinner speaker's rostrum. Then came Hugh and Bobby Morgan in their second appearance in two years. They were, in turn, succeeded by entertaining and discursive remarks and stories by Howard B. Sprague, Walter B. Martin, and James J. Waring. This was a fitting climax to the two earlier social gatherings: on Wednesday evening, the group was delightfully entertained at cocktails by the Philadelphia members, and on Thursday evening, after cocktails and dinner there was dancing for all.

A memorial was presented for Dr. Charles R. Austrian⁴⁰ who died suddenly on July 13, 1956 (see Fig. 17). Born in Baltimore in 1885, he acquired both his degrees at Johns Hopkins, becoming an associate professor in the medical school. Along the way, he served on medical advisory boards in both World Wars, was physician-in-chief at Sinai Hospital for many years, and was president of the Baltimore City, the

Johns Hopkins Medical Societies, and the Medical and Chirurgical Faculty of Maryland. He was primarily a bedside clinician in the best Oslerian tradition and did not permit his interest in any highly specialized area to divert him from the broad consideration of medicine and patients as a whole.

A Boston member, Dr. Joseph Hersey Pratt,⁴¹ died this year also (See p. 98).

In his Presidential Address, Fran Wood recounted his mark of distinction when at his second meeting as a member at White Sulphur Springs in October 1940 he succeeded in bringing down a quail with his slingshot.

Should you doubt my word, there is one living witness, Dr. Richard A. Kern. I suppose he will tell you, so I might as well mention it myself, that I was aiming at a bird I could see, and hit another hiding behind a bush which I had not seen. That is the way most of our notable achievements come about. I suppose I should also mention that I had no license to hunt quail. I recount to you this remarkable feat of arms, to remind some of you, and to introduce to others of you, my friend, Pete Abbott, who was also present on that occasion, and who took a great interest in the osteopathic maneuvers by which we worked out the dent in the bird's skull, and set him hiccoughing on his way off into the bushes, first on one foot, then several steps on the other, walking like any member of the Climatological might this evening if our wives were not here to give us reason to exhibit our temperance.

Dr. Wood had solicited a number of most interesting papers for this meeting. Reprinted in the volume is "The Problem of the Professional Guinea Pig," a humorous story of W. Osler Abbott's⁴² efforts to secure voluntary subjects for his studies with the recently devised Miller-Abbott tube. Carl Muschenheim reported on "Isoniazid After Five Years." F. Tremaine Billings, Jr. gave an interesting paper on "Speleogic Management of Consumption in Mammoth Cave: An Early Effort in Climatological Therapy"; this was the story of Dr. John Croghan, who set up an experiment on the treatment of tuberculosis by having patients live in Mammoth Cave. C. Philip Miller described "The Effect of an Antibiotic on the Susceptibility of the Mouse's Intestinal Tract to Salmonella Infection." J.E. Moore and his associates discussed "The Natural History of Systemic Lupus Erythematosus:—An Approach to its Study through Chronic Biologic False Positive Reactors." Thomas Hale Ham and John D. Battle, Jr. presented their work on the "Viscosity of Sickle Cells. A 34-year Study of an Italian Family with Sickle Cell and Thalassemia Traits."

THE SEVENTIETH ANNUAL MEETING

The seventieth annual meeting was held at the Homestead in Hot Springs, Virginia, October 28–30, 1957, with James Bordley III⁴³ in the chair. This was the third meeting in four years at the Homestead, which over the years had become a favorite with the membership. For those

who had arrived on Sunday, there was a cocktail party graciously given in the Crystal Room by the members from Washington D.C. On Tuesday evening, after cocktails the members and wives dined separately, thereafter to be united for a charming discourse on "The Influence of Epidemic Diseases on the Virginia Springs" by James P. Baker. The Gordon Wilson Lecture was delivered by Dr. Joseph W. Ferrebee of Cooperstown, New York, who told in a fascinating way of the present knowledge of and hopes for tissue transplants. Few realized at the time how far this field would advance in such a short time.

The president pointed out that those in his position may try to come to grips with some of the important issues of the day or may indulge the loyal electorate in some wholly irrelevant discourse, usually arising out of his own foibles. His talk was of the latter type. His excuse for bringing whales before the group in his address was that these monsters are the only mammals that have adapted themselves to continuous life in the sea. Their very existence, he felt, should excite us as it had him and should bring to mind aspects of climatology never before considered by this Association. It was a delightful discourse, which ended with one of those pearls that are completely irrelevant to most of us but always seem to be remembered while important information escapes us: in California there is a law making it a misdemeanor to shoot at any game bird or mammal, *except a whale*, from an automobile or plane.

The topics on the scientific program ranged from practical clinical information to basic laboratory research and was very well-balanced fare for the internist. Charles Ragan and Charles L. Christian discussed "Serologic Reactions Seen in Rheumatoid Arthritis"; R. Bretney Miller filled the group in on "Amebiasis as Seen in an Office Practice"; and Philip F. Wagley presented his excellent work on muscle end-plate potentials.

THE SEVENTY-FIRST ANNUAL MEETING

The seventy-first annual meeting was held in Cooperstown, New York from October 9 to 11, 1958. The president was Johnson McGuire⁴⁴ of Cincinnati. In attendance were 17 emeritus members, 102 active members and 97 wives. In terms of the excellence of the scientific program, the year 1958 was no exception. The Gordon Wilson Lecture was a delightful discourse on "Fever: Experimental Studies," by Ivan L. Bennett, Jr., professor of pathology of the Johns Hopkins Hospital and University School of Medicine. Mr. Herbert E. Pickett spoke following the annual members' dinner, telling the group just how and why Cooperstown is what it is. The event, coupled with a speech by William B. Bean concerning "The Munchausen Syndrome," climaxed the social activities

of the Association, which began on the evening before the meeting with a cocktail party given by the New York members of the Association.

There was a memorial presented for Hugh M. Kinghorn,⁴⁵ who was one of the members who exemplified all that the Climatological means. Hugh McLennon Kinghorn, who had been a member since 1907, died on November 7, 1957, within two days of his 88th birthday. Born in Kingston, Ontario, he received his M.D. in 1894 at McGill. During the next two years, he was intern and then medical superintendent at the Montreal General Hospital. While there he developed pulmonary tuberculosis and was treated by E. L. Trudeau from July 1896 to June 1897. He then worked at the Sanitarium until the next November, when he began to practice in the village of Saranac Lake. In the mornings he worked at the Saranac Laboratory under Trudeau and E. R. Baldwin until 1912. His special interest was immunology. Tuberculin treatment was popular at that time and Kinghorn persisted in that therapy throughout his life, helping to formulate its methodology, indications and restrictions, and use. He studied in animals the effect of tuberculin on the opsonic index, the comparative value of the von Pirquet test and the subcutaneous tuberculin test in the diagnosis of pulmonary tuberculosis. In the 1920s he reasoned that in tuberculin therapy the patient needed not only the derivatives of the tubercle bacillus, as in the bacillen emulsion of Koch, but also the factors inherent in the tissue reaction of the host to the tubercle bacillus. These factors he extracted from caseous tissue of cattle, obtaining his caseous filtrate which he gave in combination with, but separately from, Koch's tuberculin. He started the first sanitarium in Quebec and interested two of his Canadian patients in supporting the development of the Laurentian Society for the Treatment and Control of Tuberculosis, which built the first sanitarium at Ste. Agathe in 1908. Kinghorn took pride in having captained the McGill hockey team and in his later years became an enthusiastic golfer.

In his Presidential Address, Johnson McGuire discussed "The Origin and Development of the American Clinical and Climatological Association," highlighting the following points of interest:

At the second annual meeting the president, A. L. Loomis of New York, in discussing dampness of the soil as an important factor in the causation of tuberculosis, described Laennec's extraordinary experience when physician-in-charge of a convent outside of Paris for ten years: "During the ten years Laennec witnessed three times the death of its entire membership from consumption." This hideous mortality was ascribed by Loomis to dampness in the convent due to lack of porosity of the soil. At the third annual meeting, William Pepper of Philadelphia, in his 80-page Presidential Address, including numerous charts, maps and tables indicating rainfall in Pennsylvania, concluded—as had

Loomis—that dampness was intimately related to the incidence of tuberculosis.

In 1890 at the meeting held in Denver, Dr. J. H. Kellogg studied the variations in the movements of chest in man and in woman with an apparatus especially designed for this purpose, and after pointing out that there were no differences until adolescence, remarked: "I believe the cause of this modification is the change of dress. . . . The young girl is now becoming a woman and must acquire the art of lacing, wearing corset stays and sundry other contrivances which will aid in producing a fine form." In attempting to prove that woman would otherwise breathe as men do, Kellogg studied the pneumographic tracings of Indian and Chinese women without corsets and went so far as to study the pneumographic tracings of dogs with and without corsets. He concluded that the corset was the villain.

In 1893 Roland G. Curtin of Philadelphia denied that the society was "a company of old fossils who meet annually to look at musty statistics of the Weather Bureau." Dr. Curtin also repudiated the allegation that the society was organized to "boom" individual health resorts without regard to their merits.

In 1904, Curtin was appointed by the Climatological as delegate to the Fourth Pan-American Medical Congress at Panama. In his report to the Association, the regulations recommended for those living in the tropics were quoted: "1) A quiet regular life without the use of alcoholic stimulants; 2) Rise early, bathe and take coffee and rolls; 3) Breakfast at 11 a.m. on ripe fruits, beef steak and potatoes; 4) Avoid the sun and exercise at midday; 5) Dinner around six—simple in character; 6) An evening without fatigue or dissipation and the avoidance by ladies of décolleté dressing."

In 1916, Guy Hinsdale of Charlottesville, Virginia, was appointed as the Association's delegate to the second Pan-American Scientific Congress held in Brazil. In his report there was a description of an institute established for serum therapy in the treatment of bites of venomous snakes. The institute had organized a system of barter by which syringes and serum were traded for serpents. In this report the concluding statement was as follows: "For each serpent sent in, a tube of serum is given in return; and for 6 serpents, a syringe to administer the serum. Physicians can be supplied with a noose for capturing snakes, boxes and railroad tickets for their transportation to the institution. The railroads furnish the tickets free of charge."

In 1928, a splendid paper was read by James Alexander Miller on "Climate in the Treatment of Pulmonary Tuberculosis." Miller concluded that "Climate per se is not the determining factor in the success of treatment. The important factors in arrest were the regimen of rest, exercise, good food and an open air life." There was no report by any

member of the Association on the effect of climate on tuberculosis subsequently, with the exception of the interesting paper by Josh Billings on "Tuberculosis and the Mammoth Cave."

During the past decade, the quality of the scientific program had steadily improved, and due to the emphasis on clinical investigation rather than to currently fashionable medical programs emphasizing biochemical and biophysical research, had been of greater general interest to the membership.

There was an excellent paper by Vernon Knight and his collaborators on "The Origin of Drug-Resistant Staphylococci in a Mental Hospital." Morton Hamburger and his co-workers discussed "Penicillin-Sensitive Mutants Arising from Penicillin-Resistant *Staphylococcus aureus* During the Course of Experimental Canine Endocarditis." John P. Merrill discussed "A Possible Mechanism for Human Renal Hypertension." John Eager Howard and William C. Thomas presented their "Observations on Rachitic Rat Cartilage of Probable Significance in the Etiology of Renal Calculi." There was another paper by Joseph H. Holmes on ultrasound entitled "Ultrasonic Visualization of Edema."

Other than the president's revisit to some of the past events of the Climatological, there was no special attention paid to its 75th anniversary. One memorable event went almost unnoticed: F. Tremaine Billings, Jr. was elected to succeed Marshall Fulton as secretary-treasurer. Thus, the tradition of choosing wisely the incumbents in this most important responsibility of all was soundly preserved.

THE SEVENTY-SECOND ANNUAL MEETING

The seventy-second annual meeting was held at The Homestead, November 2-4, 1959 under the presidency of George Thorn⁴⁶ (Fig. 25). On Sunday evening the membership was entertained by the Baltimore group in a new large room recently opened at the hotel. The scientific program was of the highest caliber. The Gordon Wilson Lecture, delivered by Dr. Raymond D. Adams, Bullard Professor of Neuropathology at Harvard, was a masterpiece. Over a ten-year period, Adams had brilliantly and laboriously studied the vast material presented by acute and chronic alcoholism at the Massachusetts General Hospital and had classified the lesions of the central nervous system structurally and pathogenetically. President Thorn gave an erudite exposition of the life of Austin Flint, Sr., with emphasis on his stimulating influence on medical education and the leadership he exerted over medical progress during his time. On Tuesday evening, for the first time, there was a joint husband-wife dinner, which was highlighted by a superior clinical-pathological conference handled with finesse by the ladies (masterminded by Doris Thorn and Sue Merrill). The diagnosis was a syndrome comprising



FIG. 25. George W. Thorn

red hair, perennial youth, and dysfunction of the pituitary-adrenocortical axis involving the "sailor tursica."

Henry M. Thomas, Jr. presented a memorial for Dr. Joseph Earle Moore.⁴⁷ Among the outstanding papers was one by John P. Merrill on "Mechanisms of Immunity in the Rejection of Transplanted Tissue." John B. Hickam and Herbert O. Sieker presented their "Studies of Retinal Circulation and A-V Oxygen Difference in Man." H. S. Willis discussed "Studies in Tuberculo-Immunity," and Edward F. Bland presented his data on "The Declining Severity of Rheumatic Fever: A Comparative Study of the Past Four Decades."

An article by Walter L. Palmer, Howard F. Raskin, and Joseph B. Kirsner on "Morphologic Characteristics of Benign and Malignant Exfoliated Gastrointestinal Muscosal Cells" featured colored photomicrographs. Previously, Stewart Wolf had presented color photographs in his final article on Tom, the famous patient with a gastric fistula. (The first use of colored illustrations in the *Climatological* occurred in 1886, when the *Transactions* included topographical maps in blue, red, and green, accompanying an article by William Pepper entitled "A Contribution to

the Climatological Study of Consumption in Pennsylvania." In 1909, David R. Lyman's article "The Cutaneous Reaction of Lautier and Some Studies in Controls" contained reproductions of two of Lautier's colored drawings of the cutaneous reaction.) Ivan L. Bennett, Jr., Harvey Minchew and F. Robert Fekety discussed "Some Aspects of the Epidemiology of Staphylococcal Disease."

THE SEVENTY-THIRD ANNUAL MEETING

The seventy-third annual meeting was held in Cooperstown, New York, October 6-8, 1960, under the leadership of Marshall Fulton⁴⁸ and his wife, Mary Howe. Outstanding was the Gordon Wilson Lecture by Arnold Rich, whose long influence on so many members of the Climatological made this a popular choice. He discussed his classic observations on "Visceral Hazards of Hypersensitivity to Drugs," a field to which he contributed so much, describing the development of polyarteritis in man due to such common drugs as penicillin and producing similar lesions in the experimental animal by foreign serum as well as by drugs.

Doubly important was his discussion of Carl Muschenheim's paper on Hamman-Rich disease. The first description of this disease had been presented by Dr. Louis Hamman at the 52nd annual meeting of the Society, just 25 years previously. He and Rich described four cases of diffuse interstitial fibrosis of the lungs that showed an extraordinary and distinctive pathological picture. (It was the similarity of the pathologic lesions in these cases more than the clinical manifestations that led the authors to group them together.) Muschenheim described three additional cases, all of which were diagnosed ante-mortem. Rich pointed out in his discussion that this lesion can be diagnosed with certainty only early in its evolution, before it has progressed to the stage of completed fibrosis—that is, when it has gone past the period in which the alveolar walls are very greatly thickened by edema, mononuclear cells and sprouting fibroblasts, with much enlarged alveolar epithelial cells and hyaline membranes lining the alveoli. Said Rich: "So many conditions can cause pulmonary fibrosis that I would be unwilling to make a diagnosis of this type of pulmonary fibrosis from a biopsy showing only completed fibrosis."

Morton Hamburger and his co-workers discussed their approach to "Simplification of the Treatment of Subacute Bacterial Endocarditis Caused by Penicillin-Sensitive Streptococci." "Certain Clinical and Climatological Characteristics of the Common Cold" was presented by John H. Dingle, and David P. Earle and Robert B. Jennings discussed "Focal Glomerular Lesions." An interesting paper was that of George Perera and his co-workers entitled "The Family of Hypertensive Man."

William B. Bean gave a learned discourse on "The Medical Utility of

the Rare, the Obscure, the Small and the Trivial." This "sermon" ranged beyond medicine. The text came from the legal phrase "De Minimus Non Curat Lex," which translates freely as "The law doesn't fret about trifles." The Epilogue to this paper illustrates the breadth of interest represented in this program, and the amusing paths down which it led.⁴⁹

THE SEVENTY-FOURTH ANNUAL MEETING

The seventy-fourth annual meeting was held at Williamsburg, Virginia, November 2-4, 1961, under the presidency of Worth Daniels⁵⁰ (Fig. 26). The Williamsburg Inn has 120 double rooms, which was thought quite sufficient for the usually successful Climatological meeting. By August, it was apparent that the Association should expect a floodtide of attendance, and as reservation requests continued to pour in the management



FIG. 26. Left to right: Bernice Wainwright, Mrs. Lewis B. Flinn, Worth Daniels (Courtesy of Dr. Theodore Woodward)

had to make use of nearby cottages and the motor house. At this point, St. George Tucker began to commute between Richmond and Williamsburg, and while cocktail party, dining hall, and housing plans changed daily, he and the Williamsburg management rose ingeniously to each surprising new demand. The climax was reached at meeting time when 315 registrations were recorded, including: 128 active members, 37 emeritus members, and 142 wives. Several daughters added luster to the guest list. The meeting was thus a high point in Climatological history. If it was important for this Association to encourage the gathering of scientists closely bound by friendship, then the epitome of success had been reached. Worth Daniels's erudite, delightfully spicy Presidential Essay on Siamese twins led off a program that was both scholarly and entertaining.⁵¹ The high point was the Gordon Wilson Lecture, by William B. Castle, who gave the full historical panorama of pernicious anemia and the development of our current knowledge. It is such masterful lectures that make the *Transactions* so invaluable.

The members from Duke were hosts at a pleasant cocktail party the first evening. Mr. Ivor Noel-Hume, the chief archeologist of the Williamsburg project, addressed the Association on Tuesday evening, presenting a fascinating lecture with a film. This year marked the last of the pre-meeting cocktail parties sponsored by local members. It was decided that hereafter the president's cocktail party would be a standing event on Sunday evening before the start of the meeting and that the expenses would be defrayed by the entire Climatological Association.

This meeting was saddened by a memorial prepared by David P. Earle for S. Howard Armstrong,⁵² who died in Chicago on March 11, 1961. Howie Armstrong was born in New York City on April 5, 1912. After graduation from Princeton in 1933 with a brilliant academic record, he performed with great distinction at the Harvard Medical School. There he was awarded the Richardson Fellowship in Medicine. After finishing medical school, Armstrong was offered a position in the department of philosophy at Princeton, a good illustration of his many talents. Fortunately, he continued his clinical training at the Presbyterian Hospital under Bob Loeb and at the Peter Bent Brigham and Boston City Hospitals, where he came under the stimulating influence of Soma Weiss and began work with Edwin Cohn and J. L. Oncley during their pioneer work on the separation, identification, and chemistry of the plasma proteins. Armstrong left Boston in 1947 to become chairman of the department of medicine of the Presbyterian Hospital in Chicago and was made professor of medicine at the University of Illinois. In 1952 he resigned from the Presbyterian Hospital to accept the challenging position of director of biological sciences and medical education at Cooke County Hospital. His major personal research remained in the field of biophysics, with special emphasis on plasma proteins in disease. In

addition to his clinical and scientific abilities, he was a talented pianist and an accomplished yachtsman, of the variety that builds its own sailing boats.

Other outstanding members had died during the year. Marshall N. Fulton presented an excellent memorial on his uncle, Frank Taylor Fulton,⁵³ who died on April 10, 1961 just a few weeks before his 94th birthday. He graduated from Knox College in Galesburg, Illinois in 1894 and entered the newly opened Johns Hopkins School of Medicine. To him it made no difference that in order to enter he had first to complete his premedical requirements with an extra year at Johns Hopkins, nor that in order to pay his way he had to sell encyclopedias in the farming country and kitchen ranges in Nova Scotia during summer vacations. After an internship in pathology under Frank Mallory at Boston City Hospital, he was appointed the first full-time pathologist to the Rhode Island Hospital in Providence in 1900, a position he held for nine years. He became interested in tuberculosis and its early recognition in factory workers. However, he soon developed a broader interest in the field of medicine in which he was to make his major contribution, heart disease. In the summer of 1912 he went to England to study with Sir James Mackenzie, learning about the polygraph. With his own polygraph, he recognized and published the first cases of atrial flutter reported in the American literature. Two years later he went again to England to work with Sir Thomas Lewis on the infant science of electrocardiography. This time he returned with an invoice promising delivery of his own electrocardiograph machine which, in spite of the hazards of British shipping in World War I, arrived in 1915 and was immediately installed by him in the Rhode Island Hospital. This private purchase of a machine the size of an upright piano, installed voluntarily in a hospital, seems a far cry from our modern age of expanded hospital budgets, generous grants-in-aid and sixteen pound "portables." It was this move that started the development of the heart station at Rhode Island Hospital, which remained from then on Frank Fulton's great interest. The story of the heart station's birth and development he related in a short monograph written and published in his 89th year with an introduction by Dr. Samuel A. Levine. He was a member of the American Society for Clinical Investigation and the Association of American Physicians.

Hugh Jackson Morgan wrote an excellent memorial to John Minor.⁵⁴ Minor was the son of Charles L. Minor, a pioneer tuberculosis specialist in the United States, who had been one of the most influential and beloved members of the Climatological until his death in 1928. Hugh Morgan had good reason for his vivid memory of Charles Minor. At a Southern Medical Association program about 1926 in Washington, the subject of Morgan's paper was "Chronic Basilar Pulmonary Infections," the first paper that he had presented. At the end of the paper its data,

argument and conclusions were brilliantly attacked and in Morgan's own words: "I feared successfully, by a sarcastic authority in the pulmonary field who was many years my senior. Astonishment, anger and confusion all but possessed me. Before I could gain the floor to try to defend my position, Dr. Charles Minor, whom I had never met, was on the rostrum and in command. The result was devastating, and there remained nothing further for either my adversary or me to say. When I thanked Dr. Minor for my rescue he dismissed the matter as of no importance and asked where I lived and with whom I worked. I did not know then that he had a son my age who was making 'maiden' efforts to establish his practice in Washington. A few years later John Minor's classmate at Harvard and our mutual friend, Dr. C. Sidney Burwell, was to introduce us at the Atlantic City meetings, under very amusing circumstances." Dr. John Minor's interests in the field of medicine were broad. He was especially attracted by disorders of the cardiovascular system and played a role in the recognition and development of that specialty in Washington, D.C. John Minor was president of the Clinical and Climatological in 1951 and of the Society of Medical Consultants for the Armed Forces in 1952.

Another important member lost in this year, memorialized by George Morris Piersol, was Maurice C. Pincoffs.⁵⁵ Born in Chicago on August 6, 1886, he obtained his B.S. degree from Chicago, where he also carried out graduate studies. Pincoffs entered the Johns Hopkins University School of Medicine, receiving his M.D. in 1912. He served his internship at the Presbyterian Hospital in Chicago while James B. Herrick was active. On his return to Baltimore, he became resident physician at the Baltimore City Hospital, where he soon demonstrated unusual aptitude as an investigator and ability as a clinical teacher. His first academic appointment was as research assistant in pharmacology at Hopkins. Later he became an instructor in medicine. In 1922, Pincoffs was made head of the department and professor of medicine at the University of Maryland. During his 33 years in that position, he aptly demonstrated his ability as a brilliant teacher and able administrator. When he became emeritus in 1954, with characteristic energy he undertook a new assignment as professor of preventive medicine at the University of Maryland. This enabled him to study aspects of rehabilitation of the chronically ill. In both World Wars, Pincoffs acquitted himself with distinction. He entered World War I first as a captain with the British and later served with the American troops. For his skillful attention to those that came under his care and his personal courage in evacuating the wounded from the battlefield, he was decorated with the Distinguished Service Cross and the Croix de Guerre with Palms and Stars (France). In the second World War he was first commanding officer of the 42nd General Hospital—the University of Maryland Unit—but later became chief of preventive medicine in the Pacific area and advisor to General Douglas Mac-

Arthur. When hostilities ceased, he made a notable contribution. In the space of ten weeks he converted the City of Manila and its surroundings into a safe place for the returning American troops. This he accomplished by setting up the sanitary system, establishing a health department and organizing effective health measures. In recognition he was given the Legion of Merit with Oak Leaf Clusters. During this period, he was also the subject of controlled studies on the prophylactic use of antimalarial drugs.

A distinguished member of the American College of Physicians, Pincoffs served for many years as editor of the *Annals of Internal Medicine*. He became president of the Climatological in 1949 and was always a most enthusiastic member. Pincoffs was also president of the American College of Physicians, in 1951-52.

Among the excellent scientific presentations was that by George F. Cahill, Jr. on the "Metabolic Role of Adipose Tissue," and by Roger S. Mitchell, Giles Toll, and Giles F. Filley on "The Early Lesions in Pulmonary Emphysema." Sheldon E. Greisman, Richard B. Hornick, Merrill J. Snyder, and Theodore E. Woodward presented their studies on "experimental" typhoid fever, in which they made important observations on its pathogenesis and on the physiological abnormalities of the infection. Stewart Wolf and his collaborators presented their data on "Changes in Serum Lipids in Relation to Emotional Stress During Rigid Control of Diet and Exercise." Clearly the Climatological had become a superb forum for the presentation of scientifically oriented clinical investigation in a variety of fields relating to internal medicine. John H. Lawrence and his collaborators from Berkeley, California discussed acromegaly and its treatment by irradiation. He presented some interesting historical notes on Harvey Cushing. Lawrence was first introduced to acromegaly while he was an intern under Cushing at the Brigham Hospital. Later, as resident in medicine for Francis G. Blake, he assisted in the care of Dr. Cushing while he was a patient in the New Haven Hospital. During Cushing's convalescence Blake arranged to have several patients with acromegaly, or Cushing's disease, admitted for study, leading to Lawrence's further interest in the disease and its treatment by irradiation of the pituitary. He and his colleagues carried out a series of experiments in which they irradiated the pituitary gland of rats and quickly learned that the doses delivered did not appreciably influence the rate of growth or cause classic histologic destructive changes in the gland. The cause of this failure was their inability to irradiate the gland selectively; their procedure also produced the danger of excessive radiation to surrounding structures. During the years of Lawrence's association, Cushing became very much interested in nuclear physics and began to collect many of the earlier writings of some of the great physicists, such as Ernest R. Rutherford, J. J. Thompson and C. T. R. Wilson of

cloud-chamber fame. Cushing's collection, one of the best on earlier nuclear physics, is now in the Yale Medical Library. During many of their conversations, Cushing pointed out to Lawrence: "This field of isotopes and radiations in nuclear physics is going to be exceedingly important to biology and medicine in the future. It reminds me of the development of bacteriology when I was a young doctor." Said Lawrence: "He urged me to go into this field, especially since some of my studies already involved radiation. As a medical student and as an intern and resident I was often visited by my brother, Ernest O. Lawrence, then an assistant professor of physics at the University of California. I can remember especially one of his visits to Boston. With a German physicist, Professor Otto Stern, who was teaching in Boston, we had dinner in an Italian restaurant. My brother made a drawing on the tablecloth, sketching his idea for a new atom smasher he later called a cyclotron." Stern encouraged him and his brother soon had his first small cyclotron in operation. In 1935, John H. Lawrence became actively engaged with his brother in the early experiments with radioisotopes and some of the new radiations produced in one of the first cyclotrons. In this paper he reported the first seven years of his experience with the beam from the cyclotron and the results in the treatment of patients with acromegaly, describing 17 patients who had been treated during the past four years. With this particular radiation, they were able to deliver as much as 10,000 to 15,000 rads to the sella. Awaiting the development of hormonal or chemical means of control, such total energy may lead ultimately to better control of the symptoms and signs of acromegaly and to further extension of life.

THE SEVENTY-FIFTH ANNUAL MEETING

The seventy-fifth annual meeting was held at the French Lick Sheraton Hotel in French Lick, Indiana, October 25-27, 1962, with Ed Rose in charge, assisted by his wife Libby. The hotel has 586 double rooms and was the home of Indiana's last gambling mecca. Long closed were the gambling casinos, long discontinued were the private trains which brought the state's and nation's political elite. Here was the home of Pluto water, attested to by the mischievous Red Devils dancing on the hotel's roof and the mildly sulfurous odor pervading the gardens.

Ed Rose's Presidential Address was based on the life of John Coakley Lettsom and included a rare and remarkable exposition of the medical and literary notables living in the era of Samuel Johnson. Jerome W. Conn delivered the Gordon Wilson Lecture, "Some Clinical and Climatological Aspects of Aldosteronism in Man," in which he elucidated the complicated physiologico-metabolic aspects of aldosterone. It was a brilliant exposition of a field in which he had been a pioneer contributor—primary aldosteronism.

The program also featured other notable papers. Grant Liddle gave one of the early presentations of the ectopic ACTH syndrome caused by carcinomas other than those associated with the pituitary gland. Joseph B. VanderVeer presented his work on "Direct Current Shock in the Treatment of Cardiac Arrhythmias."

F. Tremaine Billings, Jr. presented a memorial for Hugh Jackson Morgan,⁵⁶ who died on Christmas Eve 1961. Dr. Morgan had devoted himself productively to medical education in its broadest sense. Born in Nashville, Tennessee on January 25, 1893, he had been a great athlete, becoming an All-Southern center for Vanderbilt. Following his graduation from that school in 1914, he entered the Vanderbilt University Medical School and two years later transferred to Johns Hopkins, receiving his M.D. in 1918. He went as a student to France in World War I, returning to The Johns Hopkins Hospital as a member of the resident staff from 1919 to 1921. Here he received the stimulus for his career and became an assistant and resident physician at the Rockefeller Institute for two years. This was followed by two years of study in medical schools and hospitals abroad under the auspices of the General Education Board. He returned to Vanderbilt in 1925 as associate professor and head of the department in 1935, a position he held for 23 years. His service was characterized by the zealous loyalty and enthusiasm of the house officers and students under him. He achieved national leadership in a number of areas, as president of the American College of Physicians, the American Clinical and Climatological, and the Association of American Physicians. He received the Alfred Stengel Memorial Award from the American College for outstanding service to the college as well as outstanding achievement in medicine. During World War II, Morgan was chief medical consultant to the surgeon-general and contributed largely to the medical success of the Armed Forces during that war. His research contributions were mainly in the field of infectious disease, with early emphasis on the subject of microbial nutrition, basic studies of the *Treponema pallidum* and careful elucidation of the natural history and treatment of a number of infectious diseases.

Edward Rose wrote the memorial for Oliver Hazard Perry Pepper,⁵⁷ born April 28, 1884, who died on January 28, 1962 after a distinguished career as professor of medicine at the University of Pennsylvania. His father, Dr. William Pepper, was a founding member of the Climatological. Perry Pepper was president of the American College of Physicians in 1939 and of the Association of American Physicians in 1947. He was a member of the American Philosophical Society. Pepper developed a productive interest in medical etymology and philology, which was expressed in his book *Medical Etymology*, published in 1949, and he was among the first to recognize the growing importance of gerontology. Perry Pepper was one of the great clinical teachers of his generation

when the evolution of medicine still permitted universalism in teaching.

Howard W. Bosworth presented a memorial for Frances Marion Pottenger⁵⁸ who died June 10, 1961, at the age of 91. Pottenger became a member of the Climatological in 1902. He graduated from the Cincinnati College of Medicine and Surgery in 1894, and in the next few years made several trips to Europe during which he worked with Koch, von Bering, Brauer, Forlanini, von Pirquet, and Anton Ghon, and had contacts with many other of the great physicians, including Virchow, Hensch, Ewald, Gower, Calmette, and Sir James Mackenzie. When his first wife developed tuberculosis, in 1895, he moved to Los Angeles and established the Pottenger Sanatorium in Monrovia in 1903, limiting his practice to tuberculosis. He became a clinical professor of medicine at the University of California when the school was reorganized and held this appointment until 1942. He was a president of the American College of Physicians and his name occupies a permanent place in the history of tuberculosis in the United States.

Chapter 9

THE FOURTH QUARTER-CENTURY

THE SEVENTY-SIXTH ANNUAL MEETING

The seventy-sixth annual meeting was held at The Homestead, November 4–6, 1963, under the presidency of Chester Keefer¹ (Fig. 27). The President's Address, about the failure of the potato crop in Ireland in the 1840s, came up with the astounding implication that our then-Chief Executive of the United States, John Kennedy, might have been born and perhaps have remained in Ireland had it not been for the soggy



FIG. 27. Left to right: Chester Keefer, Lewis B. Flinn

environment, which fostered the growth of a potato fungus. The Gordon Wilson Lecture was delivered by Albert H. Coons, who gave an excellent summary of his own contributions and the current knowledge of the theories of antibody formation. J.J. Kilpatrick, editor of the *Richmond News-Leader*, gave a provocative talk after dinner on Tuesday, emphasizing the need for better lines of communication between physicians and their lay friends and the public in general.

Joseph H. Holmes presented an excellent memorial to James Johnston Waring,² who died unexpectedly on June 2, 1962. Born in Savannah, Georgia in 1883, Waring attended Yale University and began the study of medicine at Johns Hopkins in 1904. While a student, he contracted tuberculosis and moved to Colorado. When his condition improved, he returned to the study of medicine and was graduated from the University of Colorado School of Medicine in 1913. He interned at St. Luke's Hospital and took a residency at Phipps Sanatorium, both in Denver. In 1933, he became professor of medicine and the first full-time head of the department of medicine at the University of Colorado, serving until 1948. He was president of the American Climatological in 1941. Waring received the Gold-Headed Cane Award from the University of California in 1945, in 1949 the Alfred Stengel Memorial Award of the American College of Physicians, and in 1953 the Trudeau Medal awarded by the National Tuberculosis Association. After retirement as chairman of the department of medicine, he became head of the Webb Institute for Medical Research (later named the Webb-Waring Institute), having been elected president in 1948 after the death of Dr. Gerald B. Webb. The Institute was moved from Colorado Springs to Denver, and Waring raised the funds for erection of the Webb Building on the University of Colorado Medical Center campus.

There were many excellent papers at this 1963 meeting. Wesley W. Spink discussed the host-parasite relationship in human brucellosis. "Schmidt's Syndrome" was the subject of a review by Ivan Bennett, A. McGehee Harvey and several collaborators, including Charles C.J. Carpenter, in which an added component was found to be co-existent with the original thyroid and adrenal insufficiency reported by Schmidt, notably diabetes mellitus. In recent years this syndrome has come to be known as Carpenter's syndrome. William Bean and his co-workers discussed their "Experiments in Human Deficiency: The Effects of Combined Pantothenic Acid and Pyridoxine Deficiencies on Human Body Response." Lewis Dexter described his "Quantitative Studies of Pulmonary Embolism," work performed with George J. Smith. Austin Brues, Douglas Grahn and Harry Auerbach presented "Some Problems in the Study of Radiation Epidemiology." Joseph H. Holmes and his collaborators brought the group up to date on the "Present Status of Ultrasonic

Medical Diagnostic Techniques." He was one of the pioneer clinical investigators in this field.

THE SEVENTY-SEVENTH ANNUAL MEETING

The seventy-seventh annual meeting was held at the Broadmoor Hotel in Colorado Springs, October 19–21, 1964, with Charles W. Wainwright (see Fig. 33) of Baltimore in the chair. The weather was clear, crisp and sunny and the scene quite inspiring, with the far-reaching, brown, dry plains on the one hand and the backdrop of towering, dark, wooded mountains on the other. Canadian geese and mallards flew in clipped, precise formation over the lake. At a time when gold had long ceased to be a means of barter, and silver supplies were rapidly dwindling, we were a mile above sea level, only a day's wagon ride from the fabled gold and silver mines of Leadville and Cripple Creek where Mollie Kathleen was immortalized.³ The President's Address was a carefully organized exposition of the hereditary complexity of medical symbolism related to the caduceus of Mercury and the staff of Aesculapius. The origin of the schizophrenic use of these two symbols by the medical profession was clearly explained. Dr. Joseph F. Ross, chairman of the department of biophysics and nuclear medicine at the University of Southern California, delivered the Gordon Wilson Lecture, an authoritative distillation of a tremendous amount of data regarding radioactive fallout and its effect on life.

An important highlight of the meeting was the first Jeremiah Metzger Lecture⁴ by John Eager Howard, who told in an exciting way his carefully documented thoughts regarding the formation of urinary calculi. Other highlights of the meeting included an address about historical memorabilia of Colorado by Robert L. Stearns, president of the Webb-Waring Institute; trips to the Air Force Academy, and its astounding Chapel, to Pike's Peak, and in the Golden Bee, where Dr. Rackemann played the piano and led everyone in singing.

The scientific program was an example of the rapidly growing breadth of the investigative work performed by the various members of the Climatological. As most of the papers have a direct relationship to clinical medicine, these programs have continued to attract increasing interest and the society is progressively becoming one of the major places where scientifically oriented clinical investigation is presented. Irving S. Wright and Donald Cameron gave a very briskly discussed paper on "The Subclavian Steal and Other Shoulder Girdle Syndromes." W.C. Thomas, Jr. and his collaborators described "Hyperventilation Tetany Associated with Anxiety," providing evidence that certain anxious, tetany-prone, normocalcemic individuals constitute a biochemically distinct group in whom hyperventilation-induced tetany occurs at higher PCO_2 values than

in normal subjects. They found that guanethidine reduces the susceptibility to tetany induced by hyperventilation or hypocalcemia, and their observations suggested that catecholamines contribute materially to the excitability of nervous tissue *in vivo*. A new approach to stress tests with an ingenious type of electrode and its applications to the diagnosis of myocardial ischemia was presented by Robert E. Mason and Ivan Likar. Dr. Richard S. Ross (Fig. 28) and his colleagues reported on their studies of "The Effect of Nitroglycerin on the Coronary Circulation Studied by Cineangiography and $^{133}\text{Xenon}$ Myocardial Blood Flow Measurements." David E. Rogers and his co-workers presented their excellent "Studies on Experimental Bacteremia and Reticuloendothelial Function." Harvey C. Knowles, Jr. discussed the very important subject of the relation of the control of diabetes to the development of vascular disease.

THE SEVENTY-EIGHTH ANNUAL MEETING

The seventy-eighth annual meeting was held at Williamsburg, Virginia, October 25-27, 1965, under President Francis Lukens.⁵ The Williamsburg



FIG. 28. Dick and Boo Ross, Colorado Springs, 1964.

meetings, because of the opportunity to learn so much about the early history of our country, attracted a large portion of the Climatological membership—a larger proportion than most other locations. There were 101 active, 35 emeritus members, and 123 wives present. The presidential address dealt with the development and use of artificial climates in medicine, a fresh and appropriate facet of the area of medicine that gave the Association its name. The Gordon Wilson Lecture was delivered by Alfred Gellhorn, who gave a clear exposition of the cancer problem and a very provocative work plan for future activity in the field of cellular structure and potentially controlled modification. Grant Liddle gave the second Metzger Lecture, a beautifully presented discussion of his work on cyclic steroid secretion. On Monday evening, Perry Culver spoke of his experiences related to joint Iranian and American medical education projects.

A walkie-talkie tour of Williamsburg was enjoyed by all. The glory of early American life was exemplified by Carter's Grove on the James River. The presence of Lady Edith Whitby, wife of Sir Lionel Whitby, was a pleasure, as many members of the Association knew them and were great admirers of their tireless work organizing blood availability in England during the Second World War.

At the Council meeting, a proposal was made through Roger Mitchell and other friends of Dr. Waring that a Waring Lecture be established. This recommendation was tabled for further investigation. The secretary was instructed to poll the members regarding their opinions about admitting properly qualified women as members—apparently the first time that subject had come before the Council for deliberation.

At the scientific sessions, Belton A. Burroughs discussed the new techniques available for clinical measurement of body radioactivity. Richard S. Ross and his colleagues described the "Isometric Contraction in Late Systole: A New Explanation for the Intraventricular Pressure Differences in Idiopathic Hypertrophic Subaortic Stenosis." Thomas B. Connor and his associates presented cases of "Intermittent Hyperparathyroidism," while Frank P. Brooks and his co-workers discussed "The Variable Clinical Course of Adult Celiac Disease."

THE SEVENTY-NINTH ANNUAL MEETING

The seventy-ninth annual meeting was held under the presidency of Cecil Watson⁶ (Fig. 29) at Ponte Vedra, October 30–November 1, 1966. The weather was both pleasant and invigorating, and it was the unanimous opinion that Ponte Vedra was a wonderful place to hold the meeting and should be revisited. President Watson gave an intimate presentation of the life and activities of the hardy Voyageurs as they struggled through their daily life, trapping, exploring, surprisingly healthy and surviving in



FIG. 29. Far left: Cecil Watson; far right: Mrs. Hugh Butt. (Courtesy of Dr. Theodore Woodward)

spite of ancient medical ministrations. The choice of Ted Astwood was a happy one as the Gordon Wilson lecturer; he gave an important presentation on the current knowledge of the growth hormone. The third Metzger Lecture was delivered by John Merrill, who presented an eminently practical talk on the support of the patient with the chronically failing kidney, pointing out that such support is frequently more rewarding than having to resort to use of the artificial substitute. No one will ever forget Roger Egeberg's quiet, modest reminiscences of General MacArthur. The vitality of the Climatological was again characterized by Francis Rackemann. His enthusiasm and loyalty stimulated every member. At this, the 38th meeting which he had attended without a miss, he plunged through the ocean waves with a youthfulness envied by all.

One of the impressive things about researching the careers of members of the Climatological is uncovering their little-known contributions. Charles Nash Meader⁷ died of pneumonia on August 4, 1965, at the age of 80. Migrating to Denver in 1912, two years after graduation from Harvard, he became identified with the newly-established medical school of the University of Colorado. Soon his energy and enthusiasm for teaching brought him to the attention of older physicians in the school, and in 1916 he was appointed dean and professor of medicine at Boulder and Denver. He had a keen insight into the future possibilities of the school. In 1916, when it seemed hopeless to think of maintaining operations even as they then existed, Meader proposed to expand the school

with new construction at a cost of over \$2 million. With the support of President George Norlin and the Board of Regents, Meader obtained \$800,000 from the Rockefeller Foundation, and \$242,000 from other foundations; the state legislature appropriated \$960,000; and local gifts, particularly that of Mrs. Verner Z. Reed, provided another \$300,000, bringing the total capital raised to \$2,300,000. Fred G. Bonfils of the *Denver Post* donated 17 acres of land for the building site. The Carnegie Corporation provided an emergency fund to keep the school in operation until the new plans matured. The basic idea was to combine all four years of the school and erect new buildings on a site large enough for future expansion. The new institution was to provide adequate teaching facilities for 200 students plus a 150-bed general hospital, an 80-bed psychopathic hospital, a home to accommodate 80 nurses, and all of the utility requirements.

Construction began in 1922 and was completed in 1924. Its planning had been largely the work of Meader. Unfortunately, because of ill health, he soon withdrew from clinical activities and in 1925 resigned as dean. Meader was elected to the Climatological in 1917 and served as vice-president in 1931.

As usual, the meeting featured an outstanding group of scientific papers, including: "Splenic Pooling and the Pathophysiology of Hypersplenism," by James Jandl and Richard H. Aster; "Ballistocardiograms and Ischaemic Heart Disease: A Nine Year Follow Up," by Benjamin M. Baker, Robert E. Mason, and their colleagues; "Appraisal of Typhoid Vaccine in Experimentally Infected Human Subjects," by Richard B. Hornick and Theodore E. Woodward; "Cardiac and Pulmonary Fibrosis during Methysergide Therapy for Headache," by John R. Graham; "The Pathogenesis of Varicose Veins," by J. Edwin Wood III and Robert C. Wheeler; and "Factors Influencing Host Resistance to Salmonella Infection," by Edward W. Hook and his co-workers.

THE EIGHTIETH ANNUAL MEETING

The eightieth annual meeting was held at The Homestead in Hot Springs, Virginia, October 26-28, 1967. The Homestead has always been a favorite place for the Climatological to meet, and this session under William B. Bean (Fig. 30) as president was no exception. Bean, in his Presidential Address, gave an account of his World War II research on the development of rations, heat acclimatization, and equipment for forced marches at Fort Knox and in the American desert. It brought back memories of the war to many of the members and reinforced our knowledge of the durability of the human body under a variety of unpleasant stresses and strains.



FIG. 30. Bill and Gail Bean. (Courtesy of Dr. Theodore Woodward)

In the summary of his address, he said the following: "In a laboratory established to study soldiers in tanks during World War II, my colleagues and I were able to find ways to study the physical, physiological, and emotional characteristics of young soldiers. We measured the adaptive change to heat and cold, the vagaries of water and salt needs, of clothing and fitness. The biological rules for atabrine dosage, absorption and blood levels which we found permitted medical officers in areas of hyperendemic malaria to eliminate this disease as a military problem. Measurements of physical health and fitness as well as complicated field laboratories gave us the means for comprehensive testing of emergency rations." Out of all of these experiences he innovatively selected those of greatest interest to the members of the Climatological. He ended with Pope's words, which still hold: "The proper study of mankind is man."

Robert A. Good, in the Gordon Wilson Lecture, described his outstanding work on lymphatic tissue and its relation to antibody development, phylogenetically and embryologically. Stewart Wolf, in the Jeremiah Metzger Lecture, discussed neural mechanics in sudden cardiac death. In the evening, Professor Frederick D. Nichols of the University of Virginia entertained the membership with lovely slides depicting the background material that formed the substrate for the bloom of Jeffer-

sonian architecture, impressive evidence of the renaissance versatility of the third president of the United States.

In a volume like this, it is impossible to recount the interesting histories of all the members of the Climatological. One who exemplified an appreciation of clinical medicine and of scientific endeavor was Alphonse Raymond Dochez,⁸ who died on June 30, 1964 at the age of 82. He had held the title of John E. Borne Professor of Medical and Surgical Research at Columbia University. Dochez was born in San Francisco in 1882; his family finally settled in Baltimore and Dochez entered Johns Hopkins in 1899, receiving the A.B. in 1903 and then the M.D. from the medical school four years later. One story of his undergraduate days at the Hopkins is worth mentioning. At about Christmas-time of his freshman year in medical school, he was informed that in all likelihood he would fail anatomy. He was shocked by this information and expressed incredulity. The professor replied that he had never seen him in the laboratory on Saturdays for the entire autumn term. "But," interjected Dochez, "I always go shooting on Saturday." One was left with the impression that in the first place he did pass anatomy, and in the second place his career as a gunner was curtailed if not terminated. The year after graduation, he worked in Welch's laboratory studying the effects of feeding animals an iodine-free diet. Following this, he obtained a fellowship in pathology at the Rockefeller Institute under Opie; this was an important year for him as he wrote four papers on the subject of proteolytic enzymes in the liver. In 1910 the Hospital of the Rockefeller Institute opened under the directorship of Rufus Cole, and Dochez became an assistant resident as well as bacteriologist to the Hospital. He remembered with amusement asking Noguchi if one could possibly become a bacteriologist in three weeks. Noguchi's reply is not recorded, but Dochez did become a bacteriologist and remained a microbiologist until the end of his career. His appointment at Rockefeller was also a clinical one, and he served as assistant resident and then resident for a period of five years, during which he collaborated in that institution's famous studies on pneumonia. The team, of which Dochez was a vital member, established a biological classification of pneumococci into specific types; discovered the specific soluble substance that confers the specificity; showed that the substance is of capsular origin; and demonstrated its presence in blood and urine of patients during the acute stage of pneumonia. They also pointed out the importance of type-specific antibodies in the mechanism of recovery from pneumococcal pneumonia. This led directly to the production of anti-pneumococcal type-specific horse serum, which Dochez demonstrated as efficacious in treatment of type I pneumonia. This serum was, in fact, the only effective therapy until the introduction of sulfapyridine.

After working in the clinical study of respiratory disease in World War I as a major in the Medical Corps, he returned to the Johns Hopkins medical school in 1919 as associate professor of medicine. It was there he began his studies of the streptococcus and its relationship to scarlet fever, which he continued when he joined the staff at Columbia in 1921 as professor of medicine. When Dochez started his studies of scarlet fever, the streptococcal etiology of that disease had never been established and was looked upon by many with skepticism. Dochez showed that there was a direct relationship between streptococcal pharyngitis and scarlet fever and that most of the strains of streptococci isolated belonged to a single specific type; using this single strain, by an ingenious method he produced a potent antiserum in horses. This antiserum injected intradermally would blanch the rash of scarlet fever and given parenterally had a striking therapeutic effect. An epidemic of scarlet fever in New Haven provided the first large-scale opportunity to try the serum, and its effects were enthusiastically reported by a number of observers. At the conclusion of his studies of this disease, Dochez shifted to the last of his three major fields of endeavor. This was the common cold, or perhaps more literally, common upper respiratory infections. These studies were pursued in his usual orderly and systematic manner. He and his collaborators convinced themselves that the bacteria of the upper respiratory tract were not of primary etiological significance. Similar studies failed to incriminate the gram-negative filter-passing anaerobes. Then using first chimpanzees and later *Homo sapiens* as experimental animals, he showed that typical colds could be produced by the exposure of these animals to bacteria-free filtrates. In other words, he demonstrated the viral etiology of common respiratory disease. Unfortunately, at that time, the techniques of viral cultivation were not adequate to allow indefinite propagation of infectious agents. At the end of the 1930s, Dochez found himself more and more involved in administrative work and in 1940 he was appointed chairman of the department of bacteriology at the College of Physicians and Surgeons, a post he held for nine years. Dr. Oswald T. Avery remarked in 1949, when presenting to him the Kober Medal of the Association of American Physicians: "Throughout his studies there is a unique continuity of thought centering in the dominant problem of acute respiratory diseases. The results of his work are not random products of chance observation; they are the fruits of years of wise reflection, objective thinking and thoughtful experimentation." He served as president of the American Clinical and Climatological Association, the American Association of Immunologists, and the Association of American Physicians. Dochez was widely read and had a knowledgeable appreciation of music. As an eligible bachelor, he was much sought-after by New York society. A lady once remarked to him that for a scientist he seemed to

spend a good deal of time in various boxes at the opera. His rejoinder was that, while he might seem to be in a state of suspended animation, this was, in fact, the time in which he did much of his most solid and productive thinking. And not infrequently, he would return from the Metropolitan Opera, discover Dr. Avery (with whom he shared an apartment) reading quietly in bed, and then sit down in full evening dress and with intense animation describe to his old friend some of the illuminating thoughts on the subject of microbiology that had occurred to him during the second act of *La Traviata*.

Among the interesting papers on the scientific program were: "Starvation and Survival," by George F. Cahill, Jr. and Oliver E. Owen; "The Time Course of the Development of Collateral Circulation following Gradual Coronary Occlusion in the Pig," by Henry D. McIntosh and his collaborators; and "Staphylococcal Bacteremia: Demographic, Clinical and Microbiological Features of 185 Cases," by Leighton E. Cluff and his co-workers. Lewis B. Flinn gave a very interesting and provocative discourse on the relationship of climatology to medicine, a return to the field of medicine so important in the early development of this society.

THE EIGHTY-FIRST ANNUAL MEETING

The eighty-first meeting was held at the Abbey Fontana, Wisconsin, from October 14 to 16, 1968, with Howard P. Lewis in the chair. A lovely hot Indian summer prevailed on Lake Geneva to help make this meeting in a new midwestern setting a great success. Arthur Colwell, chairman emeritus of the department of medicine at Northwestern, was the president's guest. Dr. Colwell had a summer house on Lake Geneva and through his generous and thoughtful hospitality, the golf course of the Big Foote Country Club was opened to the members. A great disappointment was the absence of Francis Rackemann. It would have been his 40th consecutive meeting.

Hod Lewis and his lovely wife presided over a meeting characterized by relaxed informal gatherings and excellent papers. The Presidential Address was a thoughtful, scholarly indictment of the overemphasis on specialization and underdelivery of complete care to the whole patient. One of the most amusing events occurred after George Schreiner's delivery of his paper on glomerular permeability in the nephrotic syndrome. With the permission of the president, he made a few comments on the Presidential Address. He spoke as follows:

I just want to reassure him that we are represented in one of the newer specialties in internal medicine, and that we have a moral on our bulletin board, "Nephrology is the last remaining form of general practice." Not too long ago, I had an experience epitomizing some of the problems he pointed out and this was a consultation on a tiger at the Washington Zoo who was a very valuable animal. He was the father of

the first white tiger that has ever been born in captivity. This tiger had been treated for two months by a cat specialist for diabetes because he had hyperglycemia, polydipsia, and polyuria. Being a generalist I did notice that the urine was foaming and did a urinalysis. This slide shows you what a tiger cast looks like. We found these hyaline casts to contain epithelial cells and inflammatory cells and many inclusions as you can see. We stained these with Sudan III and they are the fat bodies characteristic of the nephrotic syndrome. This tiger had a BUN of over 300, and the reason he had hyperglycemia was not diabetes but uremic pseudo-diabetes which, of course, is unresponsive. This next slide shows you a uremic tiger in the end stages so you can see what a terrible disease uremia is. We did a peritoneal dialysis on this tiger. The first go-around was 12 liters of fluid, and I want you to know that this is probably the first time anyone has put a tank into a tiger.

Tinsley Harrison gave a very erudite talk, as the invited Gordon Wilson Lecturer, on "Heart Disease and Heart Failure: Some Recent Progress and Some Future Challenges." At the beginning, he indicated that Hod Lewis's invitation had brought to mind the dictum that old men are fond of offering good advice in order to console themselves for their inability to set bad examples. His failure to recall the author of this aphorism was explained by the following stanza:

I've learned to use bifocals,
My dentures fit me fine,
I can live with my arthritis,
But I surely miss my mind.

This lecture, and the charming way in which it was delivered, reveals the respect, admiration, and love that Tinsley Harrison inspired in the members of the Climatological, many of whom were his colleagues, students or both. His influence on medical education and cardiac research has been felt around the world.

Robert Wilkins gave an excellent Metzger Lecture on his long years of experience with hypertension.

Martin Cummings spoke after dinner about the renaissance versatility of John Shaw Billings. In this talk he brought out several close relationships between Billings and the Climatological, although Billings himself was not a member. In the minutes of the Climatological Association for 1887 the following appears: "At the close of the afternoon session on Wednesday, the members visited by invitation the hospital of The Johns Hopkins University under the guidance of Dr. J.S. Billings." It was Billings who in June 1891, wrote to Robert Koch and obtained the first supplies of tuberculin, which he gave to Welch, who, in turn, had it tested clinically under the direction of Osler and others at Johns Hopkins. Throughout many volumes of the *Transactions* there are descriptions by members of their experiences with tuberculin in the treatment of the disease—for many years so important a part of this Association's scientific programs. Of course, as has been pointed out, one of the new subjects debated in the early volumes of the *Transactions* beginning with 1891

was the efficacy of tuberculin. These years were rightly called the "Era of Tuberculin Delirium." Many distinguished members of the Climatological were involved in the early history of tuberculin in the United States—Alfred Loomis, Abraham Jacobi, Alexander C. Abbott and others—all friends of Dr. Billings. The second reference to Billings occurs in the Association's *Transactions* for the year 1893, when the annual meeting was held in Philadelphia. At the invitation of Provost Pepper and Professor J.S. Billings, a luncheon was enjoyed in the library building of the university. In 1886, Pepper spoke of Billings in his Presidential Address entitled "A Contribution to the Climatological Study of Consumption in Pennsylvania" before the third annual meeting of the Association:

In addition to the material thus placed at my disposal, I have made liberal use of the mortality and vital statistics as prepared by Dr. John S. Billings for the census of 1880. Nor can I neglect this opportunity of referring to the great practical value of this colossal work. Despite the serious defects of the statistics resulting from the absence of any national system of registration of vital statistics such as is relied upon by all other civilized nations for the purpose of ascertaining the actual movement of the population, the improved method employed in this tenth census and the ability shown by Dr. Billings in the arrangement and analysis of the results render the two volumes which have just appeared highly valuable to the profession and highly creditable to the genius and energy of their distinguished author.

Other papers that rounded out the scientific excellence of this meeting were: "Familial Alpha₁ Antitrypsin Deficiency and Pulmonary Emphysema," by James F. Hammarsten and his colleagues; "*Escherichia coli* Epidemiology, 1960–1968," by Robert G. Petersdorf; and "The Minimal Infectious Dose of Adenovirus Type 4: The Case for Natural Transmission by Viral Aerosol," by Robert B. Couch, Vernon Knight, R. Gordon Douglas, Jr., Samuel H. Black, and Bruce H. Hamory.

L. Whittington Gorham,⁹ who was president of the Climatological in 1936, died on July 27, 1968. Gorham graduated from the Albany Academy (1902), Yale University (B.S. 1906) and Johns Hopkins University (M.D. 1910). He served as a medical house officer at Johns Hopkins and then spent a year of study and travel in Europe, returning to Boston City Hospital to work in pathology. He moved to Albany Medical College as an instructor in medicine in 1913. After World War I he progressed up the academic ladder, becoming in 1937 director of the department and professor of medicine of the Albany Medical College. From 1948 to 1951, he also served as professor and coordinator of the division of oncology of the Albany Medical College. In 1951, he retired and became director of the Public Health Research Institute of the City of New York. Throughout his life he kept returning to his early love of pathology and in 1960 became research associate and later visiting professor to the department of pathology at Cornell, from 1957 on working as an investigator at the Jackson Laboratory in Maine.

At this meeting, F.T. Billings, Jr. ended his distinguished service as secretary-treasurer and was succeeded by J. Edwin Wood III.

THE EIGHTY-SECOND ANNUAL MEETING

The eighty-second meeting was held October 20 to 22, 1969 at Hilton Head Island. F. Tremaine Billings, Jr. was the president. Here swimming during the day and cocktail parties by the moonlit sea offered finishing touches to the feeling of unspoiled beauty. Golf among the pines and palms with an occasional alligator emphasized this all the more. President Billings gave an intriguing address entitled "A Conscience—Its Anatomy and Its Application to the Practice of Medicine." It should be required reading for all. The usual mechanical failures reached a new level during Evan Calkins's talk. In fact, it was not possible to show his slides at all. He turned defeat into victory, however, with such a splendid presentation that Dr. Francis Wood was moved to raise the question later of whether Dr. Calkins actually had any slides. Dr. Eric Cruickshank, in delivering the Gordon Wilson Lecture, brought an entirely new chapter of medicine to many of us. The pneumonias and heart failures seemed far away as he described the strange maladies created by toxins from the plants of Jamaica. Jim Wyngaarden's Metzger Lecture on gout in its opening phrases humbled all not sharply trained in biochemistry. He then proceeded to elucidate these complexities to the point that the audience should then have been able to describe the basic mechanisms even to a medical student without getting caught out. Frank Paddock provided an unusual talk and film for the evening entertainment on Tuesday, a historical review of the Arctic with some added medical detection (which at times got a little too realistic for the ladies).

Many outstanding papers appeared on the scientific program. Alexander G. Bearn and his colleague B. Shannon Danes educated us about "The Genetic Secrets of the Humble Fibroblast." Francis P. Chinard and his colleagues gave a learned discussion of "Lung Water: Physiological and Clinical Significance." "Cholesterol and Cancer" was the topic chosen by Marvin D. Siperstein, while Elliot V. Newman and his co-workers discussed the "Quantitative Objective Assessment of Myocardial Ischemia." Another interesting paper was that of W. Gordon Walker and Henry N. Hulter concerning "Some Observations of the Metabolic Activity of Glomeruli."

THE EIGHTY-THIRD ANNUAL MEETING

The eighty-third annual meeting was held at Ponte Vedra, October 26–28, 1970, under the presidency of Theodore E. Woodward¹⁰ (Fig. 31). This second visit of the Climatological to Ponte Vedra was a notable one. Rattlesnakes threatened a golfer or two, gusty winds thwarted the would-



FIG. 31. Theodore E. Woodward, president of the American Clinical and Climatological Association, 1970

be outdoor dancers, swimmers were warned against something called "runout," and tasty wild mushrooms discombobulated the gastrointestinal tracts of a few intrepid investigators in spite of the expertise in this field attributed to Thornton Scott.¹¹

The program was beautifully balanced among new data with the complex theories they generated, clinical observations suggesting new approaches to patients, and historical treatises of considerable interest, the most notable of which was Roger Mitchell's discussion of the first meeting of this Association.

In his Gordon Wilson Lecture, James G. Hirsch demonstrated the ability that truly outstanding men of science often have of describing a complex system, in this case the digestive tract of cells, in easily understood terms. Dr. A. McGehee Harvey, in the Metzger Lecture, gave a valuable summary of the work from his and other laboratories concerned with myasthenia gravis. Dr. John Z. Bowers took the group behind the

Bamboo Curtain for a fascinating look at medicine in China as the after-dinner speaker on Tuesday evening. President Woodward gave an entrancing Presidential Address entitled "Typhus Verdict in American History."

The scientific program was an example of the talent exhibited by the new members brought into this Association each year. "Starvation and Body Nitrogen" was discussed by George F. Cahill, Jr. and Thomas T. Aoki. Attallah Kappas and his colleagues presented their studies of "The Occurrence of Substances in Human Serum which Can Regulate Porphyrin Synthesis in Liver Cells." "Lactic Acidosis" was the subject of Arnold S. Relman's presentation. Walter M. Kirkendall and J. Michael Kioschos discussed their "Studies on Patients with Renal Artery Stenosis: The Diagnostic Value of Plasma Renin Activity Measurements." Dudley P. Jackson presented his interesting data on "Hereditary Disorders of Blood Coagulation Due to Defective and Deficient Synthesis of Protein." "Three Dimensional Radiography" was discussed by Richard J. Johns and his collaborators, while Richard B. Hornick and his group talked about their "Investigations into the Pathogenesis of Diarrheal Diseases." One of the highlights of the meeting was the interesting presentation by Nicholas P. Christy and his collaborators on "Gustav Mahler and His Illnesses." They attempted to define Mahler's cardiac disease accurately, to show that the physical illness affected his work only insofar as his awareness of it refined his later style. They suggested that many earlier writers have tended to overemphasize his "neuroses" because his life was filled with turbulence and drama, because he made a powerful impression on many contemporaries, and because many of these left copious if inaccurate reminiscences. Mahler's early life and later sufferings "explain" very little about his music; as with other first-rate artists, he had qualities ordinary people are reluctant to recognize—creative genius and the will and capacity to overcome formidable obstacles within and outside himself.

THE EIGHTY-FOURTH ANNUAL MEETING

The eighty-fourth annual meeting was held at The Homestead in Hot Springs, Virginia, October 25–27, 1971, under President A. McGehee Harvey.¹² This was the tenth visit of the Climatological to Hot Springs, the first having taken place in 1895. The return to a traditional meeting place offered a time to reflect on the history of the organization (Fig. 32), and the proud and heroic attendance at the meeting by our beloved colleague Chester Keefer gave special meaning to such reflections. The Presidential Address was entitled "Some Autumnal Gleanings" and took its theme from Ludwig Edelstein's delightful essay, "Sydenham and Cervantes." The lesson to be learned was that the basic problem in



FIG. 32. This group at the Homestead (1971) is obviously in a relaxed mood. Left to right: Claire Mirick, Lucretia Fisher, Murray Fisher, George Mirick, Dan Ellis, Celeste Woodward (Courtesy of Dr. Theodore Woodward)

Sydenham's day was, in fact, the same problem that faces us today: how to combine learning and experience in the medical curriculum so as to produce the best type of medical practitioner. The proper balance between the two in a curriculum beset by intense competition for time is a continuing, and increasing, problem. Science is the backbone of medicine but it is of limited use to the practitioner who lacks a rigorous apprenticeship of experience in dealing with patients and their problems. In our process of revolutionizing the medical curriculum, we must bear in mind that scientific learning should sustain, but should not be substituted for, clinical experience. There is danger that the steady, almost overwhelming increase in scientific knowledge will crowd out of the curriculum the type of experience needed for the acquisition of clinical skills, and for the solution of the problems encountered in medicine.

Dr. Albert L. Lehninger, in presenting the Gordon Wilson Lecture on his studies of the fundamental aspects of calcium metabolism, exhibited his extraordinary skill in presenting for the average physician the complexities of basic research. Marvin D. Siperstein, who was the Metzger lecturer, reviewed in a classically careful way his extensive investigations on abnormalities of cholesterol biosynthesis observed in the cancerous liver. One of the highlights of the meeting was the after-dinner talk by

Francis Wood, who stole the show in relating to us the stops he made in looking through his library. His talk was amply illustrated by many humorous and pertinent cartoons, which he had collected over many years. As the expression goes, "there wasn't a dry eye in the house."

Fran Wood recalled the circumstances surrounding his preparation for this talk: "Years ago Molly and I started cutting out the good cartoons that we saw in any magazine, mostly the *New Yorker* and *Punch*, and we used to hang them up over the stove in the kitchen. We still have quite a collection of them and each year, as we got used to them, we put some other ones up there; so eventually I had a large folder of lovely cartoons illustrating almost every asininity that the human race is subject to. So when Mac Harvey asked me to talk, I thought I'd talk about my library, but while I was looking through my library to prepare my talk about some of the reading that I had enjoyed I found a lot of these cartoons clipped in the front pages of each one of the books I opened. That gave me the idea of sharing some of these parts of my library that were not strictly literary."

Edwin Allen Locke,¹³ a member of the Climatological since 1909, died at the age of 96. He was born in Halifax, Massachusetts, October 15, 1874. Locke graduated from Harvard Medical School in 1901 and was appointed house pupil at the MGH. He was awarded one of the early Dalton Scholarships to investigate osteitis deformans and allied affections. Upon completion of his service at the MGH, he entered the private practice of medicine and began what was to be a long and distinguished association with the Boston City Hospital, becoming in 1924 physician-in-chief of the Fourth Medical Service (Harvard). He was made a clinical professor of medicine in 1923. During the influenza pandemic of 1918, a special ward service for the study and treatment of influenza and pneumonia was established by Locke at the City Hospital. A research laboratory for bacteriological studies, sponsored by the department of hygiene at Harvard, was attached to this service, a combination of facilities that paved the way for the studies of specific type pneumonias and their specific serum therapy carried on and further expanded in the Thorndike Memorial Laboratory by Maxwell Finland, whose outstanding contributions in this field were to be widely recognized.

In 1905, William Osler instigated the formation of the Interurban Clinical Club shortly before his departure for Oxford. Locke was one of 24 young physicians chosen as founding members. Also among this group was David Edsall, then at the University of Pennsylvania. The two became firm friends and in him Locke recognized the abilities, training and interest necessary for a department head at a time when understanding of disease was limited largely to its clinical manifestations with but little attention being paid to its mechanisms. Frederick Shattuck was retiring as chief of the medical service at the MGH and Jackson Professor

of Clinical Medicine at Harvard. Locke, then on the staff of the City Hospital, saw the need for progressive leadership and felt that Edsall, then professor of therapeutics at Pennsylvania, would be an ideal choice as Shattuck's successor. It was largely as a result of his farsightedness, his earnestness, and the respect in which he was held by his friends and associates, that he was able to convince the trustees of the MGH and Dr. Christian, then dean of the Harvard Medical School, to offer the appointment to Edsall. Richard Cabot, who was the heir apparent, gracefully accepted this decision. Locke played an equally important part in Edsall's subsequent selection as first part-time and then as full-time dean of the Harvard Medical School. Through it all he was Edsall's trusted friend, confidant and advisor, during what was an interesting, changing, and at times tempestuous period in the evolution of the medical school and its associated hospitals. It was Locke who suggested the establishment of a separate teaching service for Tufts and Harvard at the Boston City Hospital and later played an important part in persuading its trustees to support the first full-time academic department of medicine for teaching clinical investigation and care of patients in a municipal hospital. He also played a leading role in the action of the trustees in inviting discussions with Tufts and Harvard prior to making appointments on the Third (Tufts) or Fourth (Harvard) Medical Services. The importance of bringing medical schools into the process of staff appointments at the City Hospital was great at that time when the triad of teaching, research and medical care was generally neither recognized nor accepted.

Locke had the facility of gaining the confidence of the young as well as of his peers and seniors. Francis W. Peabody, shortly after completing his service as house pupil at the MGH, sought Locke's advice as to whether he might be forgotten by the Boston medical hierarchy if he went to Hopkins for further experience. Locke recognized the advances being made at Hopkins at that time and assured Peabody that such a course could only be beneficial. In 1921, Peabody was appointed director of the Thorndike Memorial Laboratory, which was then being planned and which was dedicated in 1923. At the time he was appointed also director of Harvard's clinical service, of which Locke was physician-in-chief. A quotation from Dr. Perrin H. Long, recounting his experience as a resident in the Thorndike and an intern on the Fourth Medical Service, best describes the teaching rounds of Peabody and Locke:

One of the major attractions of the Fourth Medical Service in the mid-twenties was the morning visit three times a week by Dr. Peabody, three times by Dr. Locke. Two entirely different approaches to medicine were presented to the students and house staff by these two men. In retrospect, they never held divergent or clashing opinions. In Dr. Peabody the house officer had the nigh-perfect example of the philosophical, well-rounded, kindly physician who was well trained and deeply steeped in the scientific tradition and approach of the day, but whose paramount interest was

always in the welfare of his patients. Dr. Locke, on the other hand, was the finished Beacon Street clinician, very well versed in the natural history of disease, although without great interest in the experimental approach to individual medical problems. At the same time, he had a very real respect for the scientific basis of clinical medicine.

In 1921, Locke invited George Minot and Gerald Blake to join with him in what was probably the first organized group practice in Boston. Formal articles of agreement were drawn up; there was a common laboratory and a unified system of medical records; journals were shared; and the practice of one member was covered by another during absence for medical meetings or otherwise. An important benefit to the group's members was the opportunity to exchange ideas and consult together on interesting or perplexing problems. The group at "311 Beacon" was later joined by a series of young internists who were also members of the Climatological. Dr. Donald King was an associate for several years and Dr. John Graham and Richard P. Stetson were associates at a later date. In 1935, Locke resigned his Boston appointments and became full-time professor of hygiene and director of health and athletics at Williams College. Dr. Locke's contributions to medicine were many but his greatest role was that of a trusted and respected advisor to those who were molding Harvard medicine during the early third of this century.

There were a number of interesting papers on the scientific program. John C. Beck and his colleagues discussed their work on "Growth Hormone, Control of Release and Characteristics in Plasma." Henry G. Kunkel and his colleagues discussed "The Varied Nature of the Immune Deficiency States," while Thomas R. Hendrix presented his "Studies on the Pathogenesis of Cholera." William J. Williams and Frank L. Call II chose as their topic "Phospholipid Metabolism in Human Platelets." James W. Raleigh discussed "Rifampin: Clinical Experience with a New Anti-Tuberculosis Drug." "Effectiveness and Mode of Action of Orthophosphates in Patients with Calcareous Renal Calculi" was the topic presented by William C. Thomas, Jr. Jacques Genest and his co-workers presented "New Evidences of Disturbances of Mineralocorticoid Activity in Benign Uncomplicated Essential Hypertension." Ernest Craige and Nicholas J. Fortuin elucidated their "Studies on Mitral Valve Motion in the Presence of the Austin Flint Murmur."

THE EIGHTY-FIFTH ANNUAL MEETING

The eighty-fifth annual meeting was held at the Ponte Vedra Club, the third at this location, from October 30 to November 1, 1972 (Fig. 33) under the presidency of Lewis Dexter.¹⁴ In his Presidential Address, Dexter pointed out the almost one-to-one historical relation between sitting in chairs and thrombophlebitis. Both made their appearance several centuries ago. With increasing use of the chair, there has been



FIG. 33. The Wainwrights and Flinns at Ponte Vedra, 1972. Left to right: Lewis B. Flinn, Charles W. Wainwright, Mrs. Lewis B. Flinn, Bernice Wainwright

an increasing incidence of venous thrombosis. This does not by itself indicate cause and effect, but is highly suggestive in view of the circulatory stasis that is promoted by chair sitting and by the known action of stasis in promoting intravascular thrombosis.

The Gordon Wilson Lecture, by Eugene Braunwald, on "Protection of the Ischemic Myocardium" was an outstanding event, as was the Metzger Lecture by George F. Cahill, who brought the group up-to-date on ketosis, with special support and explanation of his position as a "confirmed teleologist." The after-dinner speakers, F. Tremaine Billings, Jr. and Roger O. Egeberg, revealed the full story of their travels together in Russia, undertaken for the official purpose of gaining insight into the Russian medical system.

The meeting included memorials to two of the important members of the Climatological. Walter Albert Baetjer¹⁵ died on August 24, 1972, having been born in Baltimore on November 7, 1883. After graduation from Johns Hopkins University, he entered its medical school and attained an outstanding record. He played a very important role in rejuvenating the Climatological at a period during its potential disintegration. Dr. Baetjer practiced medicine in Baltimore for many years, after having served in the clinical laboratory of the Johns Hopkins

Hospital. He remained a constant attender of the Climatological meetings until his vision made it too difficult for him to travel.

On February 3, 1972, malignant disease brought to a close the outstanding career of Chester Scott Keefer.¹⁶ Born in Altoona, Pennsylvania in 1897, he entered the Johns Hopkins University School of Medicine after receiving his Bachelor's and Master's Degree at Bucknell College. After graduation from medical school in 1922, he served on the house staff at Hopkins, where he came under the influence of Thayer, Longcope and Bloomfield, and was trained in the traditions of Osler and Welch. He became the first resident at the new University of Chicago School of Medicine, and then spent two years at the Peiping Union Memorial College in China. He then returned to Boston, where he remained for the rest of his career. After ten years as a member of the faculty of the Harvard Medical School and director of the Fourth Medical Service at the Boston City Hospital, he moved to the Boston University School of Medicine as Wade Professor, then dean, and finally as director of the school of medicine. The Medical Research Center of Boston University was the flowering of his dream, and the dedication of the Chester Scott Keefer Auditorium of the Center was his last public appearance. He contributed widely to many medical activities of importance. The federal government commanded his services as medical advisor to the first Secretary of the Department of Health, Education and Welfare. He served the National Research Council as chairman of its Committee on Chemotherapeutics and in other capacities. It was he who exhibited such complete fairness in controlling the distribution of penicillin in the early days of its use. In 1960, he was president of the American College of Physicians and in 1963, of the Clinical and Climatological Association.

The 1972 Annual meeting marked the 50th, or Golden, Anniversary of two of the members, J. Burns Amberson¹⁷ and Paul D. White.¹⁸ Both were elected to membership in 1922. Unfortunately, neither one could attend the meeting to describe what the Association was like 50 years ago. Dr. White nevertheless sent a manuscript describing the predictions he made when he was elected to membership about the future problems of heart disease. His article was entitled "The Early Infancy of Preventive Cardiology" and reflects his extraordinary vision and perception in those early days of his career. In it he quotes from his paper of 1922 entitled "The Diagnosis of Heart Disease with a Special Reference to its Importance in Preventive Medicine."¹⁹ The method of diagnosis presented there, suggested by Richard Cabot in 1914 and independently promoted by the New York Association for the Prevention and Relief of Heart Disease some years later, was the basis of White's own textbook written on Capri in the spring of 1929 and published by Macmillan in 1931.

A number of outstanding scientific papers were presented at this meeting. Charles A. Sanders and his colleagues, including W. Gerald

Austen, discussed "Intraaortic Balloon Pumping: Current Status and Clinical Experience." James F. Toole and his colleagues talked about "Transient Episodes of Cerebrovascular Ischemia (TIA's): Effects of Medical or Surgical Management on Natural History of the Illness." Attallah Kappas and his group explained "The Induction of a Carcinogen-Metabolizing Enzyme in Human Skin." Sheldon M. Wolff and Harvey B. Simon presented their work on "Granulomatous Hepatitis and Prolonged Fever of Unknown Origin." There was an interesting historical paper by William B. Bean and William C. Thomas, Jr. on "Walter Reed in Florida." J. O'Neal Humphries, Richard S. Ross, Gottlieb C. Friesinger, E. Eugene Page, and Lewis Kuller discussed their observations on the "Natural History of Ischemic Heart Disease in Relation to Arteriographic Findings—A Twelve-Year Study of 224 Patients."

THE EIGHTY-SIXTH ANNUAL MEETING

The eighty-sixth annual meeting was held at the Broadmoor, Colorado Springs, Colorado, October 22–24, 1973 under the presidency of John Eager Howard.²⁰ President Howard's address was entitled "Some Effects of the Changes in Science and Mores on the American Clinical and Climatological Association." He pointed out that we find ourselves in a unique position relative to most professional groups, able to aid in restoring the confidence and esteem the public once felt toward the physician, and to have our image return to what Robert Louis Stevenson once said of us: "He (the physician) is the flower (such as it is) of our civilization." Howard remembered an event that occurred in 1948, the year he attended his first meeting—an event that has since stood out vividly in his memory:

In those days it was customary, as it still is, for new members to display their wares by presenting papers. On that particular morning, Eugene Landis spoke on studies of capillary function, which he had carried out the previous year in Krogh's laboratory. In order there followed George Thorn on adrenal insufficiency, I spoke on the first uses of potassium as a therapeutic agent and McGehee Harvey gave a treatise on the mechanisms of neuromuscular transmission. At the end of that session, Dr. James Waring, a doyen of this association, approached my wife and asked if we would join him at lunch. On the way to lunch he said to Lucy: "I am sure those speakers this morning are all nice boys and will make fine members, but really, Mrs. Howard, I didn't understand a damn thing they were talking about." The pertinence of this wistfully made remark was not so obvious to me then as it is now.

Howard pointed out that a vivid panorama of the changes in our profession over the past 75 years may be had by reading the titles in the programs of the Association of American Physicians, a group organized in 1886 for the purpose of broad exchange of information among the leading teachers and practitioners of that day. As a matter of fact, there is no better way to study the historical evolution of clinical medicine as

it exists today than to read *in toto* these brief papers. Here—and to a great extent reflected also in our own programs—is unfolded in vignette form the advance of knowledge and attitudes toward the adverse forces that assail us physically and emotionally, the forces with which man is in constant conflict for survival. There appeared abruptly new insights into biochemical aberrations such as diabetes and pernicious anemia, immense changes in the weapons and strategy of our ever-present war with microorganisms, and the provision to us of synthetic compounds that mimic or actually reproduce natural hormones—these are but a few of the highlights in the amazing avalanche of scientific information hurled upon us in the past three quarters of a century.

The changes in the teaching and practice of medicine are also spread before the reader of the programs of the Interurban Clinical Club, a small organization and also an offspring of Osler, which was organized specifically for the purpose of exchanging ideas on the teaching of medicine. If one looks at the programs of this group over the intervening 75 years, one is once again struck by the almost overwhelming impact of the science of medicine on medical education and practice. There is now rarely any mention of teaching or the art of dispensing medical knowledge. The programs are confined almost exclusively to studies in chemical and physical aspects of morbid processes at the molecular level. It would perhaps be oversimplification to call this pattern the losing struggle between the art of medicine and its academia.

Howard said:

In reading through the earlier Presidential Addresses and the minutes of the business meetings [of the ACCA] in the 1920s and 1930s, one gets the feeling of generating tensions among our members as to the basic concepts of the organization's aims and purposes. Founded originally, as the name implied, for communication among friends for better management of persons suffering with respiratory disorders, mainly tuberculosis, the growing pains of scientific medicine soon affected the membership. Some of these, of whom Drs. Minot and Rackemann appear to have been the leaders, were pressing their wholly clinically-oriented colleagues to elect new members who were highly trained in the basic sciences and were carrying out clinical research with the newer technology. It was interesting to note that, in the recordings of one business meeting, a founding member became so heated as to assert that "anyone who cannot see that climate is the major therapeutic agent in the treatment of tuberculosis is a plain damned fool." One gathered that some older members feared two things: first, that the close friendships and good fellowship, which had always been preeminent in the Association, would be harmed by admission of younger men more oriented to the laboratory than to bedside medicine—much like the fears expressed by practicing physicians over the scheme of "full-time" clinical departments, phrased by Sir William Osler as "inevitably to culminate in a society of medical prigs confining themselves to ivory towers"; and, second, the worry existed that the membership would gradually be weaned from the special personal relationship between physician and patient which had long been its dominant theme.

Yet it is obvious that the closer medicine comes to mathematical precision, the better becomes accurate diagnosis, upon which good therapeutic approach depends.

And so those of the newer breed won over their confreres and some full-time clinical researchers were elected. Fortunately for all of us, wise judgment generally prevailed in the choice of these so-called scientifically minded members.

It has never been clear to me why a person interested in investigation could not also be a wise and warm physician if he truly wanted to take the time and trouble to gain a wide experience with sick persons. For it is really the innermost endowments of the man, intellectual capacity and generosity of nature, which combine to mould a great physician. It is the whole person who counts, not his training or special interests. Not everyone is gifted with the imaginative mind to analyze data and from them to synthesize new ideas which can be put to the test of experiment. Yet it is a "must" for those whose natural endowments fit them best for practice to be exposed to the other group and to keep up with the enormous mass of new knowledge which is so essential to the optimum care of their patients. The teacher investigator can also profit greatly from the association with the men who do the actual caring for the sick. For it is clinical observation of the unusual in disease, nature's own experiments, that offer to the investigator his best clues for clinical research. The programs of this Association, changing perhaps over the years to more scientific tones, seem to show admirable adaptation by the Association to the needs and types of new data for the practicing physician. I can recall no meetings from which I have not derived much useful information, new slants on old ideas, and occasionally the correction of tenets taught me in medical school as unassailable facts. These are perhaps reasons why the Association ever gains in strength and prestige and maintains so high a registration of members at meetings. . . .

The Gordon Wilson Lecture, by Gerald Auerbach, reviewed the complex subject of biosynthesis, secretion and actions of parathyroid hormone in a very effective way. Richard B. Hornick, in his Metzger Lecture, put together a story about salmonella infections that was fascinating to everyone. In the Tuesday evening after-dinner address, another great Climatologist and former president of the Association, Charles Wainwright, regaled us with history and stories of "Maryland, My Maryland."

The meeting was saddened by the death on March 5, 1973, at the age of 85, of Dr. Francis Minot Rackemann,²¹ one of the most revered members of this Association (See p. 225).

Among the outstanding scientific papers was one by John B. Stanbury on "The Varied Manifestations of Endemic Cretinism." J. Michael Criley, a new member, presented the work that he had done with his collaborators on "Mitral Dysfunction: A Possible Cause of Arrhythmias in the Prolapsing Mitral Leaflet Syndrome." Carol Johnson Johns, the wife of Richard J. Johns, presented "A Ten Year Study of Corticosteroid Treatment of Pulmonary Sarcoidosis," while Edmund R. Yendt, another new member, discussed his "Ten Years' Experience with the Use of Thiazides in the Prevention of Kidney Stones." "Roseto Revisited: Further Data on the Incidence of Myocardial Infarction in Roseto and Neighboring Pennsylvania Communities" was the subject of the talk by Stewart Wolf and his collaborators. Victor McKusick and a group of his associates presented an excellent paper on "Acquired and Heritable Defects in Collagen Synthesis and Fibrogenesis," while another new member, Rob-

ert L. Ney, talked about his "Observations on the Influence of ACTH on Adrenal Cholesterol Metabolism." "Effects of Ethanol on Drug Metabolism in the Liver" was the subject discussed by another new Climatological member, Harold J. Fallon. Stanley E. Bradley and Jaime B. Coelho presented their "Studies of Glomerulotubular Interaction." Another in the series of excellent papers presented over the years on ultrasound by Joseph H. Holmes was his discussion of the "Diagnosis of Pancreatic Pathology Using Ultrasound."

THE EIGHTY-SEVENTH ANNUAL MEETING

The eighty-seventh annual meeting was held at the Williamsburg Lodge, October 21-23, 1974, under the presidency of H. St. George Tucker, Jr. His medical observations on Jamestown, Virginia, "Jamestown—Paradise or Pest Hole," was thoroughly enjoyed by all. The after-dinner speech was given by Dr. Ludwell Johnson, who discoursed very pleasantly about the beginnings of Williamsburg. In the Gordon Wilson Lecture, Robert S. Schwartz and his colleague, Robert Lewis from Tufts, described experiments on systemic lupus erythematosus in dogs specially bred to have the disease; results suggested that it might be an infection. The Jeremiah Metzger Lecture was given by Jacques Genest on the renin-angiotensin system and essential hypertension. His was a marvelous demonstration of the importance of a continuing line of investigation carried out over a period of years.

J. Willis Hurst presented a memorial in appreciation of Paul Dudley White,²² who had died during the year. Most impressive were the words of Howard Sprague, who had been scheduled to speak four years earlier at a dinner honoring Dr. White as part of the first meeting of the Paul Dudley White Society. Dr. Sprague became ill at luncheon and was unable to present his comments, but his prepared text contained the following paragraph:

It is not the accumulation of years alone that has built the image of Paul Dudley White. His industry, his unconquerable optimism, his ability to induce his patients to take heart, his gift of serving as an example. His friend Albert Schweitzer once said, "Example is not the main thing in life—it is the only thing." He has been able to convince men that what Sir William Temple recommended is probably true—"The only way for a rich man to be healthy is by exercise and abstinence, to live as if he were poor." But Paul's reputation has the solid foundation of his labors as a teacher, for in the incubation of his laboratory under Ward G and in the basement of the Bulfinch Building were hatched the birds, you in fact, who have flown out to inhabit the roosts of cardiology throughout the earth. This is the stuff of a man's immortality; for as Henry Adams wrote, "A teacher affects eternity; he can never tell where his influence stops."

A happy event was the celebration of Walter Alden Griffin's 100th birthday. (On August 22, 1974 the churches of Sharon, Connecticut rang

their bells one hundred times in Griffin's honor.) Griffin was elected to membership in the Climatological at the 24th annual meeting in the New Willard Hotel, Washington, D.C. in May, 1907. At that time, nine of the original members were still active. He presented a paper on 160 "arrested cases" of pulmonary tuberculosis treated between 1891 and 1906. In 1907, seventeen of twenty-seven papers presented were on tuberculosis and climatology.

Graduating from Harvard (*magna cum laude*, 1897) and from Harvard Medical School (*cum laude*, 1900), Griffin served his internship at the Boston City Hospital in his final year of medical school and arrived at Sharon in 1901. He was the only physician there, in a town of 2,000. He started his practice with a horse and buggy and then bought a second-hand automobile. He was a general practitioner and over the years delivered most of the present-day inhabitants of Sharon. Early in his career, he was asked to work in the Sharon Sanitarium, of which he later became head. He made many personal contributions to the recreational activities for the young in the Sharon area. In a newspaper interview,²³ he mentioned with particular pride a playground financed and built under his direction in 1930 and the purchase of a tract of land in 1940 as a winter sliding area for children. He deeded both to the Sharon Civic Foundation, which he had founded. Further, on his 100th birthday, he still held office hours. He was one of four M.D. centenarians in the United States and possibly the only one still practicing medicine. He greatly enjoyed the meeting in 1970 at Ponte Vedra. The Council, by special order, sent good wishes to Dr. Griffin and expressed the hope of seeing him in Bermuda in 1975.

This year marked the death of Dickinson W. Richards, Jr.²⁴ on February 23, 1973. Richards was elected to active membership in 1946. Born in Orange, New Jersey, he attended the Hotchkiss School and received his A.B. from Yale University in 1917, the M.A. in physiology from Columbia in 1922 and the M.D. from Columbia one year later. He took his internship and residency in medicine at Presbyterian Hospital. He then was a fellow at the National Institute for Medical Research in London, returning to the Presbyterian Hospital in 1928 where he served as an attending physician until 1945. In that year, he became director of the first medical division, Columbia, at Bellevue Hospital and in 1947 the Lambert Professor of Medicine at Columbia. At Bellevue, Richards was a familiar figure, making rounds with his resident house staff and students, or visiting André Cournand to discuss their joint experiments. His presentation before the Climatological in 1953 was a classic article on the teaching of medicine ("Ivory Tower, or Horse and Buggy?") The approach was Socratic. He claimed to be "wholly inexpert" and saw as his job the posing of a few questions. The article was low-key, contained a number of references to classic authors, and like the man himself, was

quiet, witty, scholarly, and understated. His collaboration with Cournaud led to the development of cardiac catheterization and earned them the Nobel Prize in Medicine in 1956, which they shared with Werner Forssman of Germany. These brilliant studies paved the way to open-heart surgery and direct clinical application in basic research.

Again the scientific program was populated with excellent papers by some of the newer members of the Climatological. "Tropical Sprue: A Consideration of Possible Etiologic Mechanisms" was the topic presented by Charles E. Butterworth, Jr. Ralph L. Engle, Jr. discussed "HEME: A Computer Program for Diagnosis-Oriented Analysis of Hematologic Disease." Sheldon E. Greisman and Richard B. Hornick presented their work on "The Nature of Endotoxin Tolerance," and James C. Allen and Peter C. Kelly discussed their "Evidence for Antigenic Differences Among Pyocins of *Pseudomonas aeruginosa*." John Vaughan and his colleagues talked about their interesting data on "Cellular Aspects of the Immunology of Rheumatoid Arthritis," while "Characteristics of Immune Complexes in Connective Tissue Diseases" was the topic discussed by John S. Davis IV. W. Tabb Moore and his colleagues talked about "The Evaluation of Bone Density Findings in Normal Populations and Osteoporosis," while Robert M. Salassa gave an excellent talk on "Primary Aldosteronism and Malignant Adrenocortical Neoplasia." "Determinants of Diuretic Responsiveness" was the topic presented by Roscoe R. Robinson and his collaborators. François M. Abboud and his co-workers discussed "Selectivity of Autonomic Control of the Peripheral Circulation in Man." Gottlieb C. Friesinger and William S. Hillis gave an interesting presentation on "Reactive Hyperemia as an Index to Coronary Arterial Narrowing." "Precapillary Pulmonary Hypertension; Its Relationship to Pulmonary Venous Hypertension" was interestingly discussed by James E. Dalen, Lewis Dexter, and their colleagues. Andrew G. Wallace and his collaborators presented their data on "Evaluation and Treatment of Patients with the Wolff-Parkinson-White Syndrome."

THE EIGHTY-EIGHTH ANNUAL MEETING

The eighty-eighth annual meeting was held at the Castle Harbour Hotel, Tucker's Town, Bermuda, October 27-29, 1975, under the presidency of Theodore J. Abernethy (Fig. 34). The Presidential Address was on the history of health problems in Bermuda and contained many thought-provoking details. The Gordon Wilson Lecture was given by J. Fraser Mustard of McMaster University in Hamilton, Ohio. Mustard reviewed his lifelong work on the function of platelets in thrombosis. The Jeremiah Metzger Lecture was presented by Dr. Victor A. McKusick on "New Genetic Insight into Old Diseases" and was a very erudite discussion of an interesting subject. Following the Tuesday evening



FIG. 34. Two presidential wives looking a little perplexed. Left to right: "E" Harvey and Emily Abernethy. Bob Austrian, the president for the centennial year, 1984, is in the background. (Courtesy of Dr. Theodore Woodward)

dinner, St. George Tucker introduced his cousin Teddy Tucker of Tucker's Town, Bermuda, who entertained the group with descriptions of his numerous adventures exploring ancient shipwrecks and searching out their treasures.

A memorial was presented for Chester Morse Jones,²⁵ who died in Peterborough, New Hampshire, on July 26, 1972. Born in Portland, Maine on March 29, 1891, he moved to Massachusetts in 1894, graduating from Williams College in 1913. After an unsuccessful venture into the business world, he entered Harvard Medical School and graduated in 1919. Thereafter his professional career was associated with the Massachusetts General Hospital and the Harvard Medical School, in which he became clinical professor of medicine. Early in his career, he was awarded a William O. Moseley Traveling Fellowship and worked for a year in

France with Professor Leon Blum at the University of Strasbourg. In 1937 he became President of the American Gastro-enterological Association, and in 1952 he was elected president of the American Clinical and Climatological. From his election to membership in 1938 until his death he was a devoted member of this organization, contributing regularly to its scientific programs. In 1960, he received the Julius Friedenwald Award of the American Gastro-enterological Association. He was president of the American College of Physicians in 1961-62 and received the Alfred Stengel Award of that organization in 1967. In 1970, he was made a Master of the College.

Among the outstanding scientific papers were: "Mechanisms of Circulatory Dysfunction in Orthostatic Hypotension," by Hermes Kontos and David W. Richardson; "Left Ventricular Performance in Coronary Artery Disease by Systolic Time Intervals and Echocardiography," by Arnold M. Weissler and his colleagues; "Blood Gas Disequilibria and Exercise Hyperpnea," by Giles F. Filley; "Valve Replacement for Aortic Regurgitation: Factors Influencing the Results," by Allan L. Friedlich, Edward F. Bland and their collaborators; "Self-Administered Cardiopulmonary Resuscitation by Cough-Induced Cardiac Compression," by J. Michael Criley and his colleagues; "Heart-Reactive Antibody, Viral Illness, and the Postpericardiotomy Syndrome," by Mary Allen Engle and her colleagues; "Non-Osmolar Regulation of Renal Water Excretion," by Robert W. Schrier and his co-workers; "Bad News and Good News: Present Status and Future Prospects of Human Kidney Transplantation," by John P. Merrill; "Streptococcal Infections, Acute Nephritis and Rheumatic Fever in Trinidad: Further Observations," by David P. Earle and his colleagues; and "Aquatic Models of Human Bodily Mechanisms and Disease," by Stewart Wolf.

In the discussion of an interesting paper on "Richard Bright in Iceland—1810" by E. Lovell Becker and (by invitation) Robert M. Kark, the subject of owls in Iceland was resurrected (see Ref. 49, Chapter 8). The remarks again illustrate the lighter side of the Climatological, which provides so much charm and stimulation for its members:

Dr. James Toole (Winston-Salem): I would like to suggest that the neonatal tetanus may have been caused not by flying birds as suggested by Bright but by a custom which persists even now in countries such as Nigeria and India. Natives put a poultice of dung on the stump of the umbilical cord after the baby is born despite all attempts to educate them not to do so. Why they do this is unknown but it is an ancient tradition, widespread in primitive cultures. Perhaps it causes hemostasis but it also results in neonatal tetanus.

Dr. Becker: That is very interesting. There was no such comment in the Iceland literature.

Dr. William Bean (Galveston): I enjoyed this enormously. Many of you are probably aware that Richard Bright wrote one of the best travelogues: *Travels Through Lower Hungary*, which was published in 1819 and has now become a very rare book. I would like to recall to memory what some of you heard me say after my paper on the small

and the trivial at our meeting at Cooperstown in 1960 under the benevolent reign of Marshall Fulton. My comment was on the shortest chapter of any book I know. I quoted it as being the *History of Iceland* by the good Bishop Pontoppidan.* The chapter on Owls in Iceland reads "There are no owls in Iceland." (applause)

* I had read this in Albert J. Nock's *Memoirs of a Superfluous Man*—incidentally, a splendid biography. John Blake, in the rare books collection of the National Library of Medicine, tells me that Bishop Erik Pontoppidan never published any history of Iceland. I then found out from Quincy Mumford, Librarian of Congress in Washington, that Niel N. Horrebow wrote a book entitled *Natural History of Iceland*, published in London in 1758. The good scholar Horrebow had [a note] on page 61, chapter XLII, concerning owls. It reads as follows: "There are no owls of any kind in the whole of Iceland." But then rather shockingly in a footnote he says: "Mr. Anderson says there are various species of owls in Iceland, as the cat-owl, the horn-owl, and the stone-owl." He likewise published a print of one "caught in the farther part of Iceland on a ship homeward bound from Greenland." Von Proil wrote a book on Iceland which has a chapter concerning the snakes of Iceland. It runs as follows: "There are no snakes in Iceland." I apologize for perpetrating an error, but am delighted to remind you that Ireland and Iceland are devoid of serpents and under the best of circumstances, there are only a few owls. I atone for any injury I have done to the spirit of Bishop Pontoppidan and brother Horrebow.

THE EIGHTY-NINTH ANNUAL MEETING

The eighty-ninth annual meeting was held at the Ponte Vedra Inn, October 25–27, 1976, under the presidency of Stewart Wolf, whose Presidential Address was entitled "Social Anthropology in Medicine: The Climate You and I Create." The Gordon Wilson Lecture was given by Dr. Allan Goldstein whose title was "The History of the Development of Thymosin: Chemistry, Biology and Clinical Applications." Robert Bird gave the Jeremiah Metzger Lecture on the subject of "Information Transfer in the Service of Medicine." (Unfortunately, Bird's untimely death occurred shortly after the meeting.) One of the meeting's outstanding features was Orville Horwitz's after-dinner talk entitled "History of the World From the Beginning to 2076 with Particular Emphasis on the History of Women's Lib, the State of Florida, Medicine and the Bicentennial." This was one of the funniest evenings that we have had in years. Pete was, of course, a real pro at such efforts, having served as the editor of the *Harvard Lampoon*.

Theodore Badger presented a memorial for Cleaveland Floyd,²⁶ who was one of the pioneers in this country in the treatment of tuberculosis, elected to the Climatological Association in 1910. Just one year later, he presented his authoritative paper on "The Treatment of Tuberculosis with Artificial Pneumothorax" at the Association's meeting in Saranac Lake, New York. In 1912 he and Dr. Samuel Robinson demonstrated the technique of pneumothorax in a tent ward for tuberculous patients in the Bulfinch courtyard of the Massachusetts General Hospital. As a result of his success with this form of treatment, Floyd was called upon to administer pneumothorax to Dr. Edward Livingston Trudeau.

Floyd was born in Providence, Rhode Island, April 12, 1880. Later his

family moved to Brookline, Massachusetts, and he graduated from the high school there. He went directly to Harvard Medical School, graduating in 1903. Two years after he entered Harvard Medical School, a college degree became necessary for admission to the study of medicine. Interning at the MGH for 16 months, Floyd then spent six months at the Boston Lying-In, then at McLean, then completed his medical training at the Children's Hospital in Huntington Avenue. After maintaining a busy practice, Floyd taught bacteriology at Harvard Medical School for 16 years, was appointed as an assistant in bacteriology in 1907, then ascended the academic ladder to become associate professor of bacteriology from 1917 to 1923. He then retired from academic life to carry on a full-time private practice. He was not a prolific writer, but his paper with Robinson was the first account of pneumothorax in the treatment of tuberculosis in this country.²⁷ In 1907, Floyd opened the first public clinic for tuberculosis; it was associated with the Boston Consumptive Hospital, which was taken over by the City of Boston Health Department in 1925. In that year, Floyd became its physician-in-chief, serving for several years. In 1965, he was presented the Henry D. Chadwick Medal of the Massachusetts Thoracic Society "for distinguished contributions to the study and treatment of tuberculosis and other thoracic diseases." He was 85 years old at the time but still in practice. Floyd died at the age of 90 in Cambridge, Massachusetts.

Irving S. Wright presented a memorial for Robert L. Levy.²⁸ Levy was born in New York City, October 14, 1888 and died November 23, 1974. He graduated from Yale in 1909 and from The Johns Hopkins University School of Medicine in 1913, after which he completed a residency and served as an instructor in medicine at Hopkins. He then left to teach physiology at Harvard, following which he received an associateship in medicine at what was then the Rockefeller Institute. His next move was to Columbia University's College of Physicians and Surgeons, where he became professor of clinical medicine and director of the department of the cardiology at the Columbia-Presbyterian Medical Center. He had a distinguished career in medicine, serving as president of the New York Academy of Medicine, the New York Heart Association, and the American Clinical and Climatological Association. Levy always pursued a tradition of scholarship, and he developed a remarkable collection of first and early editions of the classics of the cardiovascular literature. This included 39 early editions of William Harvey's works, with a priceless first edition, from 1628, of *De Motu Cordis* complete with errata slip—probably the most treasured of all works dealing with the heart. This was a gift from his father-in-law, the Honorable Jesse L. Straus, United States Ambassador to France. His valuable collection of 122 volumes also included first editions of many pioneers: Sir Thomas Browne, Fabricius de Aquapendente, René Descartes, Thomas Bartholin, Gio-

vanni Morgagni, and William Withering. It was presented to the New York Academy of Medicine in 1974, where it is now available to scholars and biomedical historians.

The variety of fare presented by the scientific program is revealed by the titles of a few of the papers: "Chemoreceptors of the Heart," by Thomas N. James; "The Selection of Medical Students," by F. T. Billings, Jr.; "Immunological Studies in Acute Leukemia," by George Santos and his colleagues; "Thomas Jefferson and Smallpox Vaccination," by Byrd S. Leavell; "A Review of the Prospects for the Control of Cancer Through Screening," by Nathaniel I. Berlin; and "The Fate of Individuals Containing Radium," by Austin Brues.

THE NINETIETH ANNUAL MEETING

The ninetieth annual meeting was held at the Broadmoor in Colorado Springs, October 24-26, 1977, under the presidency of Gilbert Blount. The Presidential Address was entitled "Colorado—Environment—Medicine—A Continuum." In this address, he pointed out that seven physicians previously elected to the presidency of this Association were from the state of Colorado. All of these men came to Colorado because of tuberculosis and for the salubrious effects of the climate and environment. Although it was the supposedly favorable effects of the local environment that brought people to Colorado, early members of the Association were cognizant of the fact that not all effects of the environment were beneficial. In the early *Transactions* from 1886 to 1908, there were ten papers on the adverse effects of altitude on the heart and circulation. The first paper on this subject—"The Effects of High Altitudes on Cardiac Diseases"—was delivered by Alfred L. Loomis, the Association's first president, at the third annual meeting in 1886. He presented six case histories illustrating the deleterious effects of patients arriving at altitudes between 4,000 and 6,000 feet. It is doubtful that the altitude was significant, but his thoughts are of interest. "The ventricular dilatation which unquestionably was the cause of the sudden development of the distressing symptoms, seemed to be directly due to the effects on the cardiac circulation of the changes from a low to a high altitude." He believed dilatation to be the result of "an abnormal degree of blood pressure" which "if the resulting power of the cardiac walls is greatly impaired may produce cardiac dilatation" (this before Riva Rocci's development of the sphygmomanometer, 1899).

In 1888, Frank Donaldson of the University of Maryland had offered a paper entitled "On the Causes of Cardiac Failure in High Altitudes." He concluded that "the chief and immediate cause of dyspnea and cardiac failure may, I think be traced to the diminished pressure on the heart

walls and their consequent dilatation." His explanation was that the barometric pressure at sea level presses against the interior of the lungs and pushes them against the heart and great vessels and the inside of the chest walls. He stated that at an altitude of 10,000 feet the pressure on the heart would be only 494 mm Hg; actually, the altitude of Leadville is 10,150 and its barometric pressure 525. He noted, ". . . Now the arterial pressure and therefore, the intracardiac pressure would be the same as if at sea level when the pressure on the heart walls was 760 mm and the result would be a stretching and dilatation of the heart walls—especially of the right side—and this is precisely what is found in many of those who go onto high altitudes for their health or for other reasons and what we found in experiments upon animals." Two years later, in 1890, Donaldson gave another paper on the same subject and came to the same conclusion. Henry Sewall presented a paper at the annual meeting of 1902 entitled "Altitude in Fact and Fancy" (see p. 59). He discussed the effect of altitude on the course of pulmonary tuberculosis and stressed the point that many patients with tuberculosis do not do well at high altitudes. Earlier, Charles Denison had appreciated the fact that patients with respiratory diseases other than tuberculosis, namely emphysema, also do not tolerate higher altitudes. The last reference to the heart and circulation and altitude was by Joseph N. Hall, a Denver physician, who presented a paper in 1908 entitled "Cardiac Danger in High Altitude," discussing the potential hazard for patients with known heart disease who exercise vigorously at high altitude. Of great interest is his report concerning a patient without known heart disease who ascended too abruptly to high altitude: "One patient had been a hunter and trapper in the Rocky Mountains until 50 years of age when he purchased a ranch in the Arkansas Valley at an elevation of only 3,000 to 4,000 feet. Seven years later some friends visited him from the East, and he took them up Long's Peak, over 14,000 feet in altitude. He suffered greatly from palpitations and dyspnea, but his grit being better than his judgment, he continued until he dropped from exhaustion and dyspnea. When he started he was a hale-looking ranchman of 57 years, with no suggestion of heart disease." This case history may well represent one of the earliest reports of an individual with high altitude pulmonary edema.

James J. Waring brought Gilbert Blount to the Colorado Medical School in 1950, although he did not have tuberculosis. When an acquaintance inquired as to whether Blount knew why one of the gentleman's yearling steers had developed heart failure and died while pastured in South Park at an elevation of 10,000 feet, Blount's interest in the effect of altitude (hypoxia) on the heart and in particular the pulmonary circulation was kindled. This was his first introduction to brisket disease of cattle and initiated his studies on the effect of hypoxia on the

pulmonary circulation—studies that continued for many years, and led to the development in 1960 of a high-altitude laboratory located in St. Vincent's Hospital in Leadville, Colorado, at an altitude of 10,150 feet.

The Gordon Wilson Lecture, entitled "The New Cell Biology and Its Implications for Medicine," was given by Dr. Theodore T. Puck. His group's observations about solutions to the problem of cancer were most exciting. The Jeremiah Metzger Lecture, entitled "Of Gold and Pneumococci," was given by Dr. Robert Austrian. This was a fascinating talk leading up to his development of the antipneumococcal vaccine.

Mr. Gerry Roach spoke after the banquet on his experiences in climbing Mt. Everest.

The Association's oldest member, Walter A. Griffin,²⁹ died on August 22, 1976 at the age of 102.

Again the program was dominated by presentations of new members, including: "The Significance of Reversible and Irreversible Perfusion Deficits in the Evaluation of Ischemic Heart Disease," by Richard Gorlin and his colleagues; "The Natural History of Coronary Artery Disease: An Update on Surgical and Medical Management," by Robert E. Whalen, Andrew G. Wallace and their co-workers; "Rationale for Increased United States Interest in International Health," by John H. Knowles; "Effects of Liver Disease and of Aging on the Disposition and Elimination of Sedatives," by Steven Schenker; "Immunologic Determinants of Experimental Neurologic Autoimmune Disease and Approaches to the Multiple Sclerosis Problem," by Philip Y. Paterson and his associates; "The Rationale for Immunotherapy in Respiratory Allergies," by Philip S. Norman; "Some Persons at Rush," by James A. Campbell; and "A Novel Pathway of Metabolism for Arachidonic Acid in Human Platelets," by Daniel Deykin and his colleagues.

At this meeting, Richard J. Johns became secretary-treasurer; he succeeded J. Edwin Wood III, who had served since 1968.

THE NINETY-FIRST ANNUAL MEETING

The ninety-first annual meeting was held at Pinehurst, North Carolina, October 23-25, 1978, under the presidency of Dr. David Earle. His Presidential Address was on malaria, and it was filled with interesting information about an important and historically significant disease. Christian J. Lambertson, of the Institute for Environmental Medicine at the University of Pennsylvania, gave the Gordon Wilson Lecture. Lambertson was a pioneer in the development of modern deep diving techniques, and his address entitled "Undersea Medicine—The Limits of Human Tolerance" was particularly interesting. Carl Gottschalk gave the Jeremiah Metzger Lecture on "The Nephrons in Bright's Disease: Their Structure and Function." Dr. Gottschalk is an outstanding inves-

tigator in this field and gave a polished lecture. The after-dinner speaker was Stretch Becker who outdid himself as raconteur, magician, physiologist, and sommelier.

A memorial was presented for Worth B. Daniels,³⁰ who died on June 6, 1978 in Washington, D.C. Born in North Carolina in 1899, he was the son of Josephus Daniels, publisher of the *Raleigh News Observer* and later Secretary of the Navy during Woodrow Wilson's administration. Worth graduated from the University of North Carolina in 1920 and from the Johns Hopkins University School of Medicine in 1924. He married Josephine January, a fellow medical student, and one of their sons, Worth Daniels, Jr., practices medicine in Baltimore and is also a member of the Climatological.

After postgraduate study in London and New York, Daniels entered private practice in Washington in 1926. During World War II, he was a colonel in the U.S. Army, serving as chief of the medical service of Fort Bragg Regional Hospital and later as medical consultant to the 8th Army in the Southwest Pacific Area. Toward the end of the war, he was chief of the medical service at the Walter Reed General Hospital in Washington. In 1946, he returned to private practice and became professor of clinical medical at Georgetown and senior attending physician at the Washington Hospital Center, as well as a consultant to the Surgeon-General's Library. Instrumental in uniting this great library with those of the other armed services and federal agencies to form the new National Library of Medicine, he was the first chairman of its Board of Regents. One of his prominent traits was the serenity that accompanies a quiet sense of self-confidence and security. It made him delight in telling stories on himself, as well as confessing his own ignorance freely and without any self-consciousness. It led him to ask for information from the most junior intern to the highest-ranking professor. His rounds were seasoned with wit and laughter. Well read, he was an enemy of any sham or pretense. He saw knowledge as the means to help the patient get well. Few men had the ability to inspire so many colleagues with loyalty and affection. He rarely left a bedside without the patient's feeling better, enriched with a stronger belief in the goodness of man. He was an ideal example of the typical member of the Climatological: a sincere and talented physician, with all of the friendliness and charm that is so important a part of the Climatological.

When meningococcemia, the scourge of army recruits, appeared as an epidemic at Fort Bragg, Daniels led the way to the quick publication of some of the first reports on the effectiveness of the sulfonamides. When a mysterious malady afflicted soldiers camped in a certain bivouac area, he collaborated in the description of so-called Fort Bragg Fever. Later, serum that had been saved identified these patients as having an obscure strain of *Leptospira*.

As a civilian, his curiosity about the large neck nodes in a young girl who lived across the street from him led to correspondence with a virologist in Cincinnati, a bacteriologist in New York City, and a pediatrician in Paris. After he had published the first series of cases of cat-scratch disease in the English language, he corresponded with clinicians on every continent. For years his office refrigerator was the world's main source of skin-test antigen for cat-scratch disease.

As usual, the scientific program presented a series of excellent papers, emphasizing the increasingly scientific base of clinical investigation. Among the outstanding papers were "The Platelet as an Inflammatory Cell," by Ralph L. Nachman; "Role of Cellular Proteases in Viral Pathogenicity," by Purnell Choppin; "The Diagnostic Implication of Calcification of the Coronary Arteries as Detected by Cardiac Cinefluoroscopy," by T. J. Reeves and T. A. Lombardo; "Maturation of Stimulus Recognition and Insulin Secretion During Tissue Culture of Fetal Pancreatic Islets," by Norbert Freinkel and his collaborators; and "Studies by Echocardiography of Regional and Global Cardiac Function During Exercise," by Nicholas J. Fortuin and his colleagues.

THE NINETY-SECOND ANNUAL MEETING

The ninety-second annual meeting was held at the Castle Harbour Hotel in Bermuda from October 22 to 24, 1979, under the presidency of Richard S. Ross.³¹ The Presidential Address was on the subject of "Coronary Bypass Surgery: Status 1979," which brought the membership up to date on this very pertinent and important topic.

Daniel Nathans, Nobel laureate, presented the Gordon Wilson Lecture on "The New Genetics." Nathans demonstrated his capacity to present extraordinarily complex material in a very straightforward and understandable manner for those not familiar with the field in any detail. Sheldon M. Wolff delivered the Jeremiah Metzger Lecture on "The Pathogenesis of Fever in Human Subjects." Wolff, who was trained in infectious disease, had been interested in the subject of fever in all of its aspects for many years and gave an excellent summary of the current knowledge in this area.

On Tuesday evening, Ernie Craige reviewed cartoons that he had drawn over the many years of his medical career. He had a marvelous eye for the humorous aspects of his profession and his drawings were enthusiastically received by the membership.

Benjamin M. Baker and Richard S. Ross presented a memorial for E. Cowles Andrus,³² professor emeritus of medicine at Johns Hopkins and an internationally known cardiologist, who died on March 26, 1978. Andrus was born in Kaatsban, New York in 1896; received his bachelor's

degree from Oberlin in 1916 and his M.A. the following year; and then graduated from the Johns Hopkins University School of Medicine in 1921. He remained at Hopkins as a member of the house staff and specialized in cardiology under E. P. Carter, who was then in charge of the cardiographic laboratory. Andrus was awarded a research fellowship from the National Research Council for study at the National Institute for Medical Research in London and at University College in London under Sir Thomas Lewis, whose electrocardiographic studies of the heart were then attracting wide attention. During the second year of the fellowship, he was a visiting fellow at the University of Vienna. He returned to the Johns Hopkins house staff, where he served a two-year term as resident physician under Dr. Warfield T. Longcope. For several years, he remained a member of the full-time faculty, and then entered part-time practice. He continued, however, to devote much of his energies to education and research at the Johns Hopkins Medical Institutions. He had a long association with the *Bulletin of the Johns Hopkins Hospital*, being twice managing editor (1930–34, 1947–49); for a number of years he was assistant dean of the medical faculty. Over many years, he was physician-in-charge of the adult cardiac clinic.

His earliest work in medical science concerned the influence of pH change on heart rate, a study that he began at Oberlin and published while he was a medical student working in the physiological laboratory of William H. Howell at Johns Hopkins. Andrus and Carter demonstrated later that rise in pH produced an increase in heart rate and an acceleration in conduction. These and related findings led them to propose that the rhythmic polarization and depolarization of cardiac membrane underlying the heart beat was the result of a transmembrane gradient in hydrogen ion concentration. The theory was correct but oversimplified, insofar as others showed that pH played a secondary role to the primary one mediated by potassium flux.

Later, while in Sir Henry Dale's laboratory in London, he established the changes in pH and in CO₂ concentrations that greatly altered chronotropic responses to adrenalin and vagal stimulation. The validity of his results was rediscovered by successive generations of investigators. Many of these early studies depended on what would now be regarded as astonishingly simple preparations, which were often constructed in an ingenious manner. For example, in 1928 Andrus and Carter needed to drive a perfused heart at a given rate and to introduce an additional stimulus after a controlled interval. To do this they enlisted Harold Wheeler in the department of physics and together designed a device that amplified the cardiac action current so that it could activate a magnet. This triggered the fall of a pendulum, which in the course of its arc could close any one of a number of switches and thereby deliver a stimulus at the needed time. Using this device, they discovered that in

the presence of vagal stimulation a single shock delivered at the end of the refractory period regularly produced atrial fibrillation.

Beginning with his years in combined research and practice, Andrus's interests became more wide-ranging. In 1940, he and Philip Hill demonstrated that "angiotonin," i.e., angiotensin, provoked constriction of coronary arteries and conspicuously increased cardiac output in heart-lung preparations. This observation was overlooked for 20 years but when confirmed by others, contributed to the conclusion that the augmented cardiac output associated with elevated angiotensin levels is one of the contributing causes of sustained hypertension.

Because he was active in laboratory and animal research as well as clinical investigation, he was able in the Second World War to bring a combination of talents to the practical problems of aviation medicine, serving as a consultant in this field to the National Research Council. From 1944 to 1946, he was chief of the division of medicine in the Office of Scientific Research and Development, and he received the Certificate of Merit from President Truman for these wartime services. Andrus played an important part in planning the gradual enlargement of the National Institutes of Health and served as special consultant to the Surgeon-General beginning in 1946, chairman of the NIH Cardiovascular Study Section from 1946 to 1952, and senior scientific advisor to the National Heart Institute from 1957 to 1962.

These tasks were not a substitute for excellence in the practice of clinical cardiology. In the 1950s, his collaboration with Alfred Blalock led to a series of papers that helped to establish the principles of selection and surgical treatment of patients with mitral stenosis. He served as president of the American Heart Association from 1954 to 1955. Andrus had a fine sense of humor, was an excellent guitarist, and often provided entertainment for the Climatological meetings by singing folk songs. He was an outstanding example of the expert clinician, talented clinical investigator, and good companion that characterizes the Climatological.

President Ross assembled an outstanding scientific program; some of the most memorable papers were: "Immunologic Concepts Relating to the Pathogenesis of Diffuse Interstitial Lung Diseases," by Herbert Y. Reynolds; "The Pathogenesis of Hepatitis B: Possible Mechanisms of Viral Replication and Tissue Injury," by David J. Gocke; "An Association Between the Renin Angiotensin System, Blood Pressure and Potassium Intake," by W. Gordon Walker and his colleagues; "Predictors of Clinical Course After Survival of Myocardial Infarction," by J. O'Neal Humphries and his associates; "The Association of Increased Lung Water and Normal Left Ventricular Filling Pressure in Human and Canine Myocardial Infarction," by Paul N. Yu and his co-workers; and "Reduction of Urinary Oxalate Excretion in Primary Hyperoxaluria by Diet," presented by Edmund R. Yendt and his associates.

THE NINETY-THIRD ANNUAL MEETING

The ninety-third annual meeting was held at Williamsburg, November 2-5, 1980 under the presidency of R. Carmichael Tilghman, who preserved his perfect attendance record. President Tilghman had attended each scientific session and meeting of the Climatological since his election to membership in 1958. His Presidential Address on Captain Cook and his clinical contributions were drawn in large measure from an original printing of Captain Cook's journal, which he found in the library of Mrs. Tilghman's family home on the Eastern Shore of Maryland, Wye House. His lecture reflected Tilghman's scholarly pursuits into the historical documents, and his remarks were beautifully illustrated by colored slides taken during his travels.

The Gordon Wilson lecturer was Dr. Richard T. Johnson of Johns Hopkins, who gave a masterful talk on the relationships between viral infections and disease of the central nervous system. He illustrated slow viral infections and their production of chronic neurological diseases in both animal and man, the late consequences of viral infections on the developing nervous system, the special effect of self-limited viral diseases on the fully developed nervous system as a consequence of its inability to replace cells which have been lost, and the potential relationship of these findings to neurologic diseases that at present have no known etiology.

In the Metzger Lecture, Dr. Charles C.J. Carpenter traced the historical basis of the therapeutic management of cholera. In addition to illustrating the dramatic improvements and outcome produced by vigorous replacement of salt and water, he pointed out multiple instances throughout history in which proven effective therapy was rejected by the medical establishment and its leaders because the suggested approach flew in the face of established dogma.

The after-dinner address was given by Dr. Saul Farber, who used *Fiddler on the Roof* to illustrate the cultural features of life in the eastern European *shtetl*. He alternated between excerpts from the original cast recording and old photographs from that era.

The Council approved the report of the *ad hoc* Committee chaired by F. Tremaine Billings, Jr., which reached the unanimous opinion, "No changes in the constitution or by-laws need be made. Women can be elected to the Association on the basis of their own merit. This is as it should be. No special membership would be automatically awarded to anyone whether it be male or female spouse." In keeping with the times it was reported that it would be possible to obtain continuing medical education Category I credit for attending the scientific sessions.

This meeting was marked by the presentation of an unusual number of memorials for deceased members. Many had been important contrib-

uting members to the Association. Francis D.W. Lukens³³ was a past president of the Climatological. Born in Philadelphia on October 5, 1899, he died in Pittsburgh on December 4, 1978. He graduated from Yale in 1921 and four years later from the medical school of the University of Pennsylvania. After internship and residency at the Pennsylvania Hospital, he was a fellow under Warfield T. Longcope in Baltimore, where he studied nephritis. In 1930, he returned to Pennsylvania and worked for two years with T. Grier Miller in the section on gastroenterology. He then joined the staff of the recently organized Cox Institute for the Study of Diabetes and worked with Cyril Norman Hugh Long, its first director. Their series of classic experiments profoundly affected the direction of research in diabetes and endocrinology. It was Lukens and Long who first reproduced the Houssay phenomenon, which showed that pituitary ablation had a profound effect on diabetes. They then showed that adrenalectomy had a similar effect, prolonging the survival of depancreatized animals and reducing the degree of hyperglycemia and hyperketonemia. They demonstrated that this effect was due to the removal of the adrenal cortex, because it was not produced by adrenal demedullation or denervation. These observations proved that both the pituitary and the adrenal cortex had modulating effects on the insulin regulation of glucose and lipid metabolism.

In 1936, Lukens succeeded Long as director of the Cox Institute; he was first made chief of the diabetic section of the hospital of the University of Pennsylvania and was later promoted to a full professorship in medicine. Luken's collaboration with William C. Stadie, professor of research medicine, was very productive. They established a relationship between ketone body production and the rate of ketone body oxidation in depancreatized cats and man, and helped to establish the view that ketone body production is the predominant factor in the development of hyperketonemia in diabetic ketoacidosis. With Samuel Gurin and Roscoe Brady in the department of biochemistry, Lukens studied the impairment of hepatic fatty acid synthesis that results from insulin deficiency. He developed standardized methods for the experimental use of alloxan in diabetic animals. Producing persistent hyperglycemia in the cat by repeated glucose injections, he observed the resulting pathological alterations in the beta cell structure and function of the pancreas. He also first noted that insulin modified the effects of growth hormone on nitrogen balance.

Lukens was president of the American Diabetes Association in 1959-60, receiving its Banting Medal in 1960 and serving as its Banting lecturer in 1964. He was president of the Endocrine Society in 1964-65 and president of the American Clinical and Climatological in 1964. After he retired from his professorship at Pennsylvania, he returned to active

patient care at the Pittsburgh Veterans Administration Hospital, where he remained until shortly before his death in 1978.

Other prominent physicians memorialized at this meeting were Kenneth E. Appel, Theodore L. Badger, James Bordley III (see p. 228), Eugene C. Eppinger, John H. Knowles, Byrd S. Leavell, Edgar Mayer, Thomas M. McMillan, Jr., Stephen I. Morse, Vince Moseley, Donald M. Pillsbury, Henry T. Ricketts, Julian M. Ruffin, and John B. Youmans.

Among the outstanding papers on the scientific program were reports on experience with "Refugee Medicine in Thailand," by Celeste L. Woodward and by John Collins Harvey; Paul F. Griner discussed "Requirements for the Efficient Use and Precise Interpretation of Diagnostic Tests." An excellent talk was that of Victor A. McKusick on "The Human Genome through the Eyes of Mercator and Vesalius." "Naloxone and Weight Reduction: An Exercise in Introspection" was the topic of Theodore B. Schwartz's presentation. Hermes A. Kontos and his co-workers discussed the "Pathophysiology of Vascular Consequences of Experimental Concussive Brain Injury." John R. Graham talked about "Drug-Induced Localized Systemic Sclerosis." James E. McGuigan presented his studies on "The Role of Gastrin in Duodenal Ulcer," while Elliott Middleton, Jr. and his co-workers discoursed on "The Flavonoids: A Brief Review and Study of Effects on Antigen-Induced Histamine Release from Human Basophils."

THE NINETY-FOURTH MEETING

The ninety-fourth meeting of the Association took place at the Ponte Vedra Inn, Ponte Vedra Beach, Florida, October 18-21, 1981, with President James W. Haviland in the chair. Climatological disruptions in the form of a tropical depression had brought gale-force winds and rains just before the meeting convened, requiring closure of the coastal route to Ponte Vedra. Fortunately, this inclement weather subsided and the meeting took place under sunny skies. There were 130 members in attendance.

President Haviland invited H. St. George Tucker, Jr. to commemorate the anniversary of the surrender of the British troops by General Cornwallis at the Battle of Yorktown. Following this historic event, the President then described the eruption of Mt. St. Helens. He presented in picturesque detail the geological basis for vulcanism and traced the geology of Mt. St. Helens and the Cascade Ridge, illustrating his remarks with dramatic color photographs. The Gordon Wilson Lecture was given by Dr. Russell Ross, who brought together in a most lucid manner his extensive experience in the investigation of the pathogenesis of the lesions of atherosclerosis. His lecture presented an excellent background

for a number of the papers contributed by members on the subject of atherosclerosis and coronary vascular disease.

Leighton E. Cluff was the Metzger lecturer. In an effective address, he traced the extensive changes in medical education that have been produced by federal research grant support over the past few decades. He described in detail the analogous changes in our system of medical education—changes produced by the responsibilities of full-time staff for patient care and the revenue that such responsibilities generate. The after-dinner address was given by Samuel Proger, who traced, in a remarkably interesting way, the cultural history of the northern Florida region from antiquity to modern times.

The vigor of the Association was again documented by the election to membership of eight outstanding candidates, all of whom were active in academic centers and in teaching. The new members were: John E. Bennett, William B. Blythe, David R. Challoner, Edward J. Huth, Carol J. Johns, William N. Kelley, Robert C. Moellering, Jr., and Samuel O. Thier.

Another of the outstanding members of this Association, whose chief interest was tuberculosis, died on December 3, 1979. James Burns Amberson³⁴ earned his M.D. degree in 1917 at the Johns Hopkins University School of Medicine. A few months after graduation, while working in pathology under E. W. Goodpasture, he developed tuberculosis and was sent for treatment to the Loomis Sanitarium in Upper New York State. (As in so many other instances, members who distinguished themselves by their research, teaching and patient care in the field of tuberculosis began their careers under just these circumstances). From 1918 to 1929, Amberson was associated with the Loomis Sanitarium, ultimately as its physician-in-chief. In 1929, he joined the faculty of the College of Physicians and Surgeons, Columbia University, in New York City and served at Bellevue Hospital under Dr. James Alexander Miller as visiting physician responsible for the Bellevue Tuberculosis Service. He was professor of medicine at P&S from 1955 to 1965 and was the general director of the New York Tuberculosis and Health Association. He was the recipient of many honors including the Trudeau Medal, the award of a Mastership of the American College of Physicians and the establishment by his former residents and associates of the Amberson Lectureship, to be delivered each year at the meeting of the American Lung Association. From 1930 to 1955, the Bellevue Chest Service was an intellectually exciting place. The attending staff was of unusually high caliber, including such greats as Dickinson Richards and André Courmand. Pulmonary physiology, radiology, bacteriology and pathology were integral parts of this service and through it all Amberson was the

energizer and skillful leader of the program. He was 89 years old at the time of his death.

New or recently elected members of the Association presented many excellent papers, including: "Transforming Principle of the Pneumococcus: Rosetta Stone to the New Biology," by William A. Atchley; "Progress in Management of Patients with Infective Endocarditis," by C. Glenn Cobbs and his colleagues William E. Dismukes and Robert B. Karp; and "Advances in Blood Cultures," by John A. Washington II. However, one of the members of long standing, Rudolph H. Kampmeier, ended his silence of 28 years and presented a paper that allowed the *Treponema pallidum* to wriggle into the program after lying dormant for more than three decades. He gave an excellent history of the development of our knowledge of how to treat the pox and then presented his follow-up of 251 patients treated between 1944 and 1950 with penicillin. No evidence of late syphilis was identified among 173 of these patients who lived 20 or more years after their infection. He pointed out that although acute syphilis is still common in the public health clinics, penicillin has taken the core out of Osler's aphorism: "Know syphilis in all its manifestations and relations, and all other things clinical will be added unto you."

A review of the programs of this Association beginning in 1885 is very revealing. Those of the first quarter of a century were devoted in the main to tuberculosis and to extolling the climate in which the speaker happened to live. During this period and in the next two decades, seven papers linked syphilis to pulmonary disease and five explored syphilitic heart disease. Then came a flurry of several papers extending Keidel's research at Hopkins on the continuous treatment of the disease with arsenic and bismuth, and papers by J. Earle Moore, Hugh Morgan and Charles Mohr, who used this podium to describe their pursuit of this spirochete. Kampmeier thus reminded us that *T. pallidum* is still well and thriving but is subject to an efficient check rein. He predicted that it would have an extended period of hibernation insofar as the annals of this Association are concerned.

There were other interesting papers as well, illustrating the direction in which clinical medicine was progressing. Lewellys F. Barker and Roger Y. Dodd discussed "Viral Hepatitis: Lessons from Blood Donors"; Robert H. Waldman and his collaborators informed us about the current state of knowledge relating to oral immunization against influenza; and R. Gordon Douglas, Jr. and his colleagues described the changing virulence of influenza A viruses. There were an interesting series of papers on medical education, in addition to the Metzger Lecture. These included a discourse by William L. Morgan, Jr. on bedside teaching and an interesting presentation by Jeremiah A. Barondess on the content and process

in ambulatory care, representing notes from his very successful practice in internal medicine.

THE NINETY-FIFTH MEETING

The ninety-fifth meeting of the Association was held at the Arizona Biltmore Hotel in Phoenix, Arizona from October 24 to 27, 1982, with George F. Cahill, Jr. of Boston, Massachusetts in the chair. True to form, the advent of this meeting occasioned climatological abnormalities in the form of precipitation. The invariably hot and dry weather of Arizona was interrupted by an extended period of rain showers. Fortunately, they did not dampen the spirits of the assembled group at the evening receptions. There were 99 members in attendance.

President Cahill's scholarly and lucid address focused upon his long-standing interest in the metabolic underpinnings of energy metabolism in man and beast, including beasts that undergo prolonged starvation. The Gordon Wilson Lecture was given by Dr. Robert J. Lefkowitz, who described his work on the adrenergic receptors as a model for understanding the regulation of receptor action in general. Daniel D. Federman presented the Jeremiah Metzger Lecture on "The Determinance of Human Sexuality." He gave a very clear, sensible and tasteful discourse covering the genetic, embryological, endocrine and psychological aspects of the development of human sexuality.

The after-dinner address was given by Mrs. Clara Tanner, Professor Emerita of Anthropology at the University of Arizona. Her presentation, which covered the arts and crafts of native Americans in the southwest, was beautifully illustrated with color photographs, which she and her husband had taken.

Once again, the vigor of the society was made evident by the election of twelve outstanding candidates, all of whom had made a significant record in academic medicine: Vardaman M. Buckalew, Jr., Robert M. Carey, Michel Chrétien, Robert B. Copeland, Martin Goldberg, S. Richardson Hill, Jr., Ceylon S. Lewis, Jr., John H. Mulholland, Patrick J. Mulrow, John A. Oates, Lynwood H. Smith, and W. Anderson Spickard, Jr. Sir John W.H. Butterfield was elected to honorary membership.

A memorial was presented by Edward Rose for Richard Arminius Kern, one of the oldest members of this Association, who had been, over the years, a most effective contributor to its deliberations. Kern received his medical degree in 1914 from the University of Pennsylvania, and took his residency training at the Hospital of the University of Pennsylvania. He continued on the staff there and rose progressively to the position of professor of clinical medicine in 1946. In that same year, he was appointed chairman of the department of medicine at the Temple University School of Medicine. Kern had a very distinguished record in

the U.S. Navy during World War II and maintained an interest in the activities of the Naval Medical Service, remaining active in the Naval Reserve after World War II. His career in the American College of Physicians was distinguished, and he served as president of that organization. For many years he edited the *American Journal of The Medical Sciences* and was author or co-author of 132 articles during his active years in medicine. A superb teacher and clinician, fluent in five languages, an important contributor to the fields of allergy and hypersensitivity, he was illustrative of those statesmen-like clinicians who have added so much to the prestige of the Climatological Association.

On the scientific program, Robert G. Petersdorf and Eric Larson revisited fever of unknown origin, a follow-up of a much earlier paper on this subject that Petersdorf had written in collaboration with Paul Beeson. His presentation here brought the subject up-to-date and showed the different disease patterns that are now brought to the attention of the physician in patients with unexplained fever. Again, in addition to an excellent group of scientific papers, there were a number relating to medical education, certification and problems relating to clinical research—all given by members who had had a distinguished experience in these aspects of medicine.

The necessity of getting the history of the organization to the printer before the ninety-sixth meeting prevents the inclusion of a description of those proceedings in this volume. However, this meeting was under the chairmanship of a distinguished American medical statesman, Dr. Robert J. Glaser of Menlo Park, California who was ably assisted by two vice-presidents of high academic caliber, Richard W. Vilter of Cincinnati, Ohio and Ralph Tompsett of Dallas, Texas.

Fortunately, there was time to include a group photograph taken at that meeting (Fig. 35), thus extending our record of this Association by visual means from the first group picture taken in Richfield Springs, New York in 1894 up to the ninety-sixth meeting at the Southampton Princess in Bermuda in October 1983.



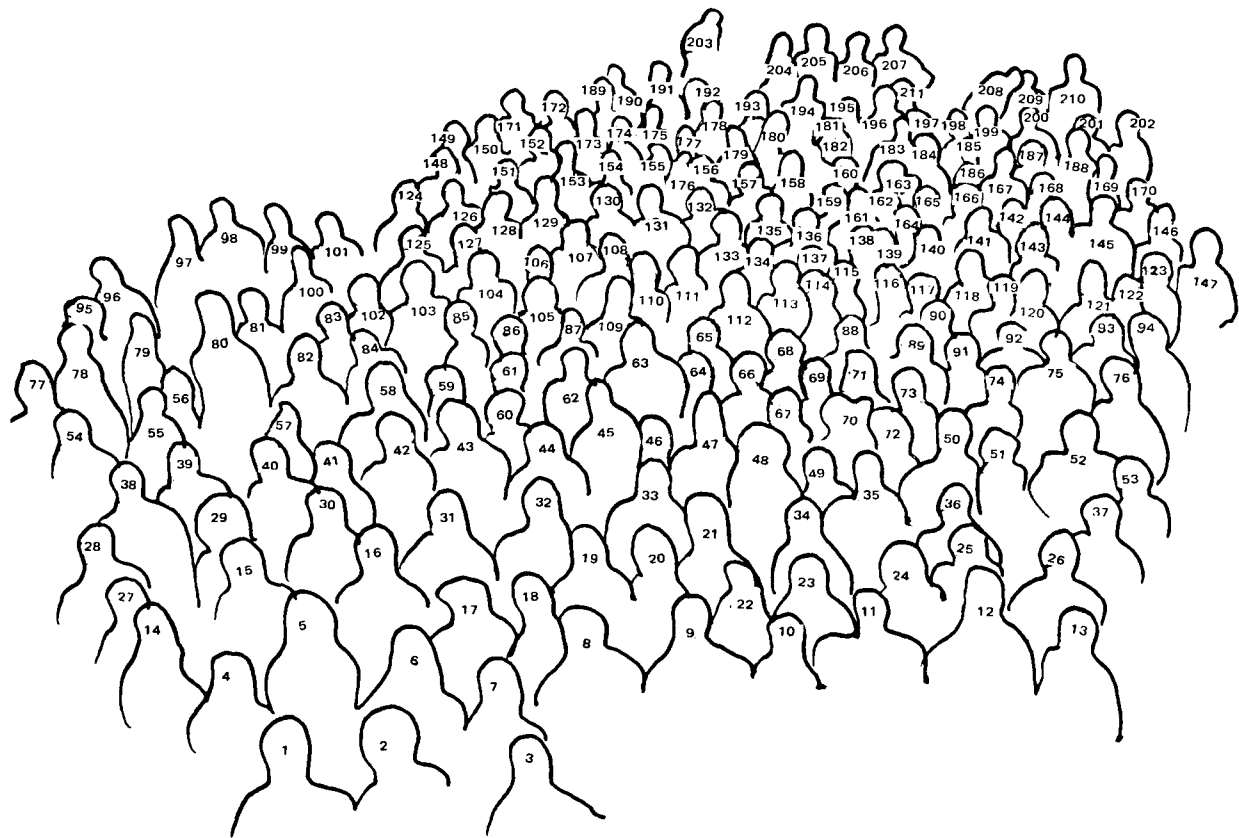


FIG. 35. Members of the American Clinical and Climatological Association, Bermuda, October 23-26, 1983 1- Richard Ross, 2- Boo Ross, 3- Sue Vilter, 4- Lewis Flinn, 5- Marge Lewis, 6- Ralph Tompsett, 7-Richard Vilter, 8- Carol Johns, 9- Richard Johns, 10- Helen Glaser, 11- Robert Glaser, 12- Nicholas Christy, 13- Beverly Christy, 14- Mimi Griner, 15- Paul Griner, 16- Ceylon Lewis, 17- Gleaves James, 18- Thomas James, 19- Allan Friedlich, 20- Barbara Friedlich, 21- Mrs. Thomas Barnett, 22- Lorraine Sanford, 23- Jay Sanford, 24- Ann Wood, 25- J. Edwin Wood, 26- Joan Choppin, 29- Babs Gamble, 30- John Gamble, 31- Fran Kaye, 32- Priscilla Kaye, 33- Thomas Barnett, 34- Jo Fallon, 35- Richard Reitemeier, 36- Patsy Reitemeier, 37- Purnell Choppin, 38- Theodore Woodward, 39- Celeste Woodward, 40- Ethel VanderVeer, 42- Joseph VanderVeer, 43- Calvin Kay, 44- Raymond Randall, 45- Brenda Thomas, 46- Jessie Hook, 47- Edward Hook, 48- Harold Fallon, 49- Eloise January, 52- Patrick Mulrow, 53- Jacqueline Mulrow, 55- Paul Lacey, 56- Robert Carey, 57- Mrs. William Blackard, 58- Anderson Spickard, Jr., 59- Bobbie Rogers, 62- William Thomas, 63- A. McGehee Harvey, 64- Alfred Bollet, 66- Mrs. Alfred Bollet, 67- Robert Whalen, 68- Anne Hunter, 69- Mrs. Munsey Wheby, 70- Mrs. Robert Whalen, 71- Annelies Atchley, 72- Lewis January, 73- Munsey Wheby, 74- Virginia Calkins, 75- Evan Calkins, 76- Tabb Moore, 77- Peg Bondurant, 78- Jane Crofford, 79- Sally Cahill, 80- Oscar Crofford, 81- Hamet Mohler, 83- Lynwood Smith, 84- David Rogers, 85- Mrs. Lynwood Smith, 86- Patricia Toole, 87- James Toole, 88- Tom Hunter, 89- William Atchley, 90- Kits Culver, 91- Perry Culver, 93- Mrs. Elliott Middleton, Jr., 94- Elliott Middleton, Jr., 95- Micheline Chrétien, 96- Michel Chrétien, 97- George Cahill, 98- Edwin Bransome, 99- Janet Bransome, 100- Daniel Mohler, 101- Franklin Paddock, 102- Nan St. Goar, 103- Walter St. Goar, 104- Stewart Wolf, 105- Virginia Wolf, 106- Helen Gottschalk, 107- Carl Gottschalk, 108- Robert Waldman, 110- Joseph Johnson, 112- Edward Huth, 113- Judy Johnson, 114- Vardaman Buckalew, Jr., 115- "E" Harvey, 116- R.C. Tilghman, 117- Mimi Tilghman, 118- Gloria Warren, 119- Leonard Eliel, 120- Kathie Southworth, 121- Marion Phinney, 122- Arthur Phinney, 123- Marion Goldberg, 124- Marion Norman, 125- Dudley Rochester, 126- Philip Norman, 127- Louis Rochester, 128- Oscar Thorup, 129- James Haviland, 130- Marion Haviland, 131- St. George Tucker, 132- Mary Tucker, 133- Robert Salassa, 135- Betty Earle, 136- Peg Carroll, 137- Sue Hornick, 138- Richard Hornick, 139- Dee Hildreth, 140- James Warren, 141- David Challoner, 143- Jackie Challoner, 144- Max Michel, 147- Martin Goldberg, 148- Charles G. Cobbs, 149- Nicholas Fortuin, 150- James Allen, 151- Anita Cobbs, 152- John Mulholland, 153- Stuart Bondurant, 154- Meredith Oates, 155- Oglesby Paul, 157- David Earle, 159- Mrs. Harper Helles, 160- Mrs. Frank Brooks, 161- Harper Helles, 164- Eugene Hildreth, 165- Janet Hill, 166- S. Richardson Hill, Jr., 167- Robert Austrian, 168- Mrs. Laurence Early, 169- Truman Schnabel, 170- Laurence Early, 171- Sally Flinn, 172- Rosie Moore, 173- Parksie Mulholland, 174- Gottlieb Friesinger, 175- Michael Criley, 176- John Oates, 177- Mary Ellen Criley, 179- Anne Sinclair-Smith, 180- Bruce Sinclair-Smith, 183- Irving Wright, 184- Lois Wright, 185- Peg Bearn, 186- Bobbie Austrian, 187- Sandy Dexter, 188- Lewis Dexter, 189- Beverly Mason, 190- Robert Mason, 191- Claire Allen, 192- Janet Friesinger, 193- Calhoun Witham, 194- Edward Rosenow, 195- Esther Rosenow, 196- Joseph Reeves, 198- Alexander Bearn, 199- Walter Palmer, 200- John Sessions, 201- Mrs. John Sessions, 202- Walter Palmer's daughter, 204- Cissy Futcher, 205- Hadley Conn, 207- Palmer Futcher, 208- Hamilton Southworth, 209- Edward Nichols, 210- Bobbie Nichols, 211- Betty Conn. No less difficult than identifying shadowy figures in old pictures is matching the names of members and wives to the 211 faces in this recent group photograph. Several members and their wives have had a hand in contributing to the figure legend: We did our best. Nevertheless, the author's apologies are extended to anyone who is unidentified or, worse yet, identified incorrectly.

Chapter 10

EPILOGUE

What can be said of the achievements of the American Clinical and Climatological Association—the actions that have enabled it, after a century of existence, to be such a dynamic, vigorous and relevant organization at the turn of its first century on the medical scene? It did not hold to its original objectives. At the end of the third decade of its being it was a society of good fellowship and deteriorating scientific validity. One of its most illustrious members, William Osler, had abandoned ship after only one year as a member to lend his talents to the development of the Association of American Physicians (in 1886), that small, nonspecialized binational society (American and Canadian) that has held throughout to its original avowed purpose—the advancement of scientific and practical medicine. Meanwhile, the Climatological, a small group of top-ranking clinicians of the day whose primary interest was in tuberculosis, continued its fixation on diseases of the chest (essentially tuberculosis) and its attention to the value of health spas with the proper climate and adequate accommodations for its patients.

There were rumblings of dissatisfaction: the Association was ignoring the newer developments in medical knowledge and was giving too much priority to good fellowship at the expense of acquiring new ideas through the election of promising young clinical scientists. Little was done, however, to stem the steady decline of the scientific base of the programs or to widen the sphere of interest beyond the original narrow concepts, until Charles L. Minor's challenging Presidential Address in 1913. Minor pointed out that in the three decades since the birth of the Climatological, laboratory diagnosis had assumed an importance that the leaders of that day could not possibly have anticipated, and had become the indispensable handmaiden of the up-to-date physician. He realized that times change and men with them, and that climatology, even with the powerful addition of the lungs and heart, no longer offered a sufficient field for the activities of the Association. Climatology no longer awakened much real interest in the minds of the large majority of active medical men, and Minor recognized that if the Climatological was to grow and prosper and be not merely a charming club of good fellows, but an active scientific association doing valuable work toward medical progress, its borders had to be widened, the restrictions imposed by the name removed, and the membership freed to represent the study of all subjects within the realm of internal medicine.

The time was propitious, and Minor perceived that the popularity enjoyed by laboratory work had inundated the programs of many societies

with papers on topics of a highly technical nature which, no matter how important, were of subordinate interest to those in the vital realm of practical internal medicine. He emphasized that there was and would continue to be a demand for more papers on clinical subjects, papers based on bedside observation:

... While we all realize fully the importance of laboratory work, and would not belittle it, we realize that the society which goes in for a large amount of this is apt to lose in practical medical interest.

There is, therefore, a very real demand for a society strictly clinical in its aims and scope and where all men interested in general clinical medicine ... can bring their problems for discussion. ...

That we have always had, and now have, many distinguished names upon our rolls, that there have been read before us in the past many valuable communications, is not in itself enough, unless we can make our Society so attractive and desirable by its broad and catholic scope that the best of the younger men, who, mind you, gentlemen, will be the distinguished men of the next 15 or 20 years, shall feel it a privilege, an honor and a benefit to enter our ranks.

In 1915 the name was changed to the American Climatological and Clinical Association, but this step was not enough. The deterioration continued and Lawrason Brown, a devoted and perceptive member, recognizing the almost imminent demise of the Association, assembled a group in his hotel room at the Washington, D.C. meeting in 1922, a room that he shared with Charles Minor. Brown reemphasized the points that Minor had made 10 years earlier. Among those present was Gordon Wilson; he sensed the impending doom, assumed the responsibility of doing something about it, and found two enthusiastic collaborators who were equally determined to instill a new spirit into the group—Walter Baetjer and Louis Hamman. These three were actively concerned for the following nine years with election of new members, serving for most of that time on the Council. The Association's current superior standings in attendance, enthusiasm, and quality of the program—an outstanding menu of the best of ongoing clinical investigation—is a tribute to their devotion and hard work. The interdependence of basic science and clinical medicine leading to high-quality clinical investigation is shown by this phase of the life history of the Climatological.

In 1924, an amendment to the constitution created a new category of life member (emeritus), which increased the number of available places for new members. The new approach worked, and from 1925 on the election of young men of high quality provided an excellent balance between practicing clinicians and academic clinicians, both of whom contributed to the increased excellence of the clinical science that has dominated the programs in recent years. In his Presidential Address of 1926, David R. Lyman expressed the view that "the combination of heart and brain is ever the one that wields the greatest influence." The social

graces were not downgraded in this surge to upgrade the scientific quality and breadth of the Association membership.

The final change in name came on May 10, 1933, when Article I of the Constitution was altered to read: "The society shall be known as the American Clinical and Climatological Association." In that same year the Council voted to establish the Gordon Wilson Medal for clinical excellence, and after a prolonged period of discussion the Gordon Wilson lectureship was established.

The fiftieth meeting in Washington, D.C. on May 9 and 10, 1933, with George R. Minot in the chair, was a memorable event. At this time, the idea was proposed of shifting the meetings to the fall of the year, a move that would give more visibility and stature to the organization. This meeting also marked the beginning of Francis M. Rackemann's tenure as secretary. The office of secretary was, and still is, the focal point of the Association's functions and he rapidly earned the title of "Mr. Climatological." His obsessive devotion to the Association is, to a large degree, responsible for the perfect melding of friendship and science as the cornerstone of the Association and for the growing attendance of members and their wives at the annual meetings. The programs of the Climatological have not been dominated by the fantastic developments in molecular biology and their influence on medical science. The evolutionary changes in program content have been in the direction of scientific advances, but this has not represented in any way a move away from the realm of the clinician. Practice must rest on the best possible scientific foundation. The Association has met the challenge laid down by Charles Minor to remain a society in which clinical science and concern for the interests of the practicing internist remain dominant. Thus, it represents an approach that provides a "clearing house" for new developments of high quality related to the clinical needs of practicing and academic internists alike. It has great vigor, a relevant platform for the present needs and a devoted and outstanding membership that is alert to the changes that may be needed as the future unfolds.

The historian's question is whether Osler's desertion in 1886 made the current success possible. How might things have been different if he had remained and promptly urged the approach that was delayed in the Climatological, but that he and others promptly put into effect in the Association of American Physicians?

But the main question is—What has the Association done to justify its long life span? Clearly its greatest contribution has been to its members. Under its umbrella and aided by outstanding Gordon Wilson and Jeremiah Metzger lecturers in recent years, they have brought to themselves a constantly expanding but well-digested stream of medical knowledge. In order to integrate the information properly, the Associa-

tion has continued to provide an atmosphere that stimulates free discussion—an essential for careful evaluation of new developments.

Last but not least has been the nurturing of professional friendships. This gives substance to the exchange of ideas and fruitful associations at every level, that can continue and grow between meetings as well as at them. There is good fellowship and constructive clinical and scientific interchange, both vertically and horizontally. Members of all ages blend together in their common goal of good medicine, and since most of them are teachers of medicine, the Association serves as a continuing forum for the promotion of excellence in medical education, research and practice.¹

Appendix A

SECRETARY-TREASURERS OF THE ASSOCIATION

From the early days of the Climatological, the office of Secretary-Treasurer has been the key to the organization's success. The holder of this important position provides the continuity without which an association of this nature could not function effectively. It thus seems fitting to recognize the important service done by those who have held this office, by presenting a biographical sketch of each incumbent. (Years indicate period office was held.)

JAMES BAYNES WALKER 1884-1895

James Baynes Walker, M.D., Ph.D.¹ was born in Whitpain, near Valley Forge, Montgomery County, Pennsylvania, in 1846. His early years were spent on the farm where he was born. In 1862, he was graduated from the Friend's Central High School in Philadelphia and received his medical degree from the University of Pennsylvania in 1872. The next year he was elected intern in the Philadelphia General Hospital (Blockley), where he served with distinction. In 1874, after the required study, he presented a thesis and successfully passed the examination for the degree of doctor of philosophy from the University of Pennsylvania. In 1880, he was elected visiting physician to the Philadelphia General Hospital. He was a member of the Union League of Philadelphia, a fellow of the American Academy of Medicine, and of the College of Physicians of Philadelphia.

Walker held the position of secretary for the first ten years in the life of the Association. He attended all 28 meetings from that time until his death, with the exception of three. He contributed 22 times to its activities by presenting a paper or discussing one. Walker was one of the five members who stood by the Association and saved it when its life was threatened in 1886 by members who had more love for medical politics and power than for the American Climatological Association. This determined group attempted to amalgamate it into one of the sections of the American Medical Association. His quick wit and keen perception, which were associated with good judgment, made him a very valuable man in the early development of the Climatological.

GUY HINSDALE 1895-1918

Guy Hinsdale² was born in Brooklyn, New York on October 26, 1858. He graduated from Amherst College in 1878 and from the University of Pennsylvania School of Medicine in 1881. He had the unusual opportunity early in his career of assisting S. Weir Mitchell and William Osler

for several years in their hospital activities. Hinsdale became associate professor of climatology, Medico-Chirurgical College, Philadelphia, 1905–1917; professor of climatology, University of Pennsylvania, 1917–1919; instructor in medicine and medical diagnosis of student medical officers, U.S. Navy, Philadelphia, 1917. Hinsdale was in practice in Hot Springs, Virginia, from 1904 to 1929. He was medical director of the clinic at the Greenbrier Hotel, White Sulphur Springs, West Virginia, from 1929 to 1942, at which time the U.S. Army purchased the hotel for use as a general hospital.

Hinsdale was a member of the American Academy of Medicine (vice-president, 1906–1907); the College of Physicians of Philadelphia; the American Neurological Association; the American Medical Association; the Pennsylvania Society for the Prevention of Tuberculosis (president, 1900–1902); the American Meteorological Society; the American Association for the History of Medicine; Comité d'Honneur de Congrès International du Tourisme, du Thermalisme et du Climatisme, Paris 1937. He served as the American representative of the International Society of Medical Hydrology.

In 1895 he was awarded the Alvarenza Prize of the College of Physicians of Philadelphia for his essay on "Syringomyelia"; the Boylston Prize from Harvard for his essay on "Acromegaly," 1898; and the Hodgkin Prize from the Smithsonian Institution for his essay on "Atmospheric Air in Relation to Tuberculosis," 1914. Hinsdale was author of a book entitled *Hydrotherapy* and numerous papers on climatology and balneology.

In addition to his many medical activities, Hinsdale possessed many scholarly attainments, for which he was quite well known. As an illustration of the breadth of his interest, there is a charming story about a letter to Dr. Joseph Pratt thanking him for a gift—a note written in Latin. Not to be outdone, and to express his admiration of one so well versed in the classics, Dr. Pratt decided to write his reply in Greek. This he did with the help of a Greek physician who was a graduate of the University of Athens. Pratt assumed that Hinsdale would call upon the professor of Greek at the University of Virginia for a translation. Not at all! Writing again in Latin, Hinsdale said that he himself had done it with the aid of his Liddell and Scott. He went on to compliment Pratt on the accuracy with which he placed his accents. This called for a confession but it must have been a disappointment to Dr. Hinsdale. Evidently he had been proud of the knowledge of Greek displayed by an old friend, for he wrote: "Why did you tell me?"

ARTHUR K. STONE 1918–1933

Born on December 13, 1861, A. K. Stone³ graduated from Harvard in 1888 with the degrees of M.A. and M.D. He then studied in Berlin,

Strasbourg, and Vienna before starting in general practice in his native city of Boston. Early in his career he took an active interest in the plight of patients with tuberculosis in the Boston tenements. He was influential in the founding of the Massachusetts State Sanatorium—the first state sanatorium in the country—at Rutland in 1898. Later he served as chairman of the commission charged with the direction of the four state sanatoriums. Stone also served on the Board of the National Tuberculosis Association, where his advice was of great value during the progress of the Framingham experiment conducted by that Association, with funds provided by the Metropolitan Life Insurance Company.

In 1915 he was appointed to the commission charged with recommendations for reorganization of the Massachusetts State Board of Health and the value of his counsels was publicly noted by President Charles Eliot of Harvard. Stone was also active in the affairs of his State Medical Society, serving as its treasurer for 14 years.

After being made a member of the American Climatological Association in 1904, it remained one of his chief interests throughout the balance of his life. He served as its secretary from 1918 to 1933. With the relegation of climate to a role of secondary importance in the medical scheme of things, a group of younger members under the leadership of Gordon Wilson of Baltimore proposed making this Association an important forum for discussion of the broader problems of clinical medicine. Many of the older members were strongly opposed to this idea, and particularly to any change whatsoever in the original name of the Association. Stone, however, who was then secretary, gave his enthusiastic support for the idea that prevailed and saved the society from a premature death.

FRANCIS MINOT RACKEMANN 1933–1941

Francis Minot Rackemann^{4,5} was born in Milton, Massachusetts on June 4, 1887 and died on March 5, 1973 in Boston. Up to the final year of his life he had been well and active, frequently visible walking the mile between his office and the Massachusetts General Hospital, rain or shine, or rowing a single shell on the Charles River Basin in propitious weather.

He attended Boston schools and graduated from Harvard College in 1901. Still undecided as to his future, he accompanied his cousin, college classmate and close friend, George Richards Minot, who was completing his registration on the final day before the season's opening of the Harvard Medical School. That formality concluded, in an age before long lines of applicants for medical schools, the registrar turned to Rackemann and said: "How about registering yourself? Just mail us a copy of your college diploma and turn up tomorrow at nine o'clock for the first class." Rackemann promptly complied and four years later received his M.D. *cum laude*. Graduation was followed by a medical house officership (1912–

13) at the Massachusetts General Hospital. The ensuing two years he served as a research fellow in medicine at the Presbyterian Hospital in New York, where he worked with Warfield T. Longcope on anaphylaxis. This experience led to a lifelong interest in allergic mechanisms of disease. While in New York, he collaborated with Longcope in the publication of three papers relative to serum disease and one on severe renal insufficiency associated with attacks of urticaria in hypersensitive individuals. These were the first contributions to a bibliography of some 175 articles, most of which had an orientation toward allergy. Burrage pointed out that of even greater impact than these laboratory studies upon his approach to medicine was his daily contact with a preceptor who had an unusually broad experience as clinician, teacher of internal medicine and laboratory investigator—Warfield Theobald Longcope. Rackemann was entranced with Longcope's background, which included membership in the fifth class to graduate from the Johns Hopkins University School of Medicine (1901) in an era when the thinking of its students was dominated by the teachings of Osler, Welch and Mall; and Longcope's experience as resident pathologist at the Pennsylvania Hospital in Philadelphia, where for three years he served under the guidance of Simon Flexner, finally succeeding him as director of the Ayer Laboratory there.

After completion of his work in New York, Rackemann returned to Boston and was appointed chief of the outpatient department at the Massachusetts General Hospital. The following year, he received a commission as First Lieutenant in the United States Army, serving on active duty in Army hospitals until 1919. After the Armistice, he returned to the MGH and established one of the first allergy clinics in the United States; he worked there regularly for the next 30 years. Burrage reminisces:

His early demonstrations of vivid clinical skin test reactions and his ward consultations were among the first routine exposure students had anywhere to the approaches of the allergist. . . . On one occasion during a ward round consultation, an apprehensive asthmatic patient intensely watched the group across the room which stopped at his bed. Upon the patient's introduction to his consultant, he hesitantly turned to Rackemann and said: "You look like an oarsman to me." Before the topic medicine had even been approached, the "visit" was presented with a brief but substantial biography of both consultant's and patient's oarsmanship. The latter thereupon became demonstrably more relaxed and less wheezy. Several months later the consultant was surprised to find the name of the above oarsman on his private office appointment list where it intermittently reappeared over the years for subsequent medical and nautical consultations.

In 1918, Rackemann reported a study of 150 cases of bronchial asthma and later an encyclopedic 20-year follow-up of over 600 asthmatic children. Few were the aspects of clinical studies on allergic manifestations

that did not find their way into a cross-section of medical periodicals. His *Clinical Allergy, Asthma, and Hay Fever*, published in 1931, contained continuing clinical observations on a series of treated cases. Photographs and drawings to demonstrate skin tests as tools in the diagnosis and treatment of hay fever and asthma were included. Hans Zinsser wrote the foreword to this impressive volume. He stated: "Dr. Rackemann, who has combined a long experience of patients with painstaking study of the fundamental phenomena, has written a monograph which should be of utmost importance in bringing the immunological point of view to the clinician and the clinical point of view to the immunologist. In this task we think the author has been eminently successful." In 1956, Rackemann published his second book entitled *The Inquisitive Physician: The Life and Times of George Richards Minot*.

On the national scene, Rackemann made as significant an impact on the development of allergy as any other of the pioneers, with the possible exception of Robert Cooke of New York. Rackemann became in 1923 a founder and charter member of the American Society for the Study of Asthma and Allied Conditions, the first such organization in the United States. He later became its first secretary and in 1923 followed Cooke as the second physician to serve as its president. Shortly thereafter the American Association of Allergy was organized and Rackemann became its president in 1934. These two national organizations were amalgamated in 1944, becoming the American Academy of Allergy, which subsequently elected Rackemann to honorary fellowship. In late 1973, the Francis Minot Rackemann Lectureship of the Academy of Allergy was established in his memory.

Rackemann's name was also widely known on an international basis, and he was an honorary member in the allergy societies of France, Britain, Canada, Holland, Italy, Spain, Scandinavia, and Argentina, as well as in the International Association of Allergology. In 1952, he became a Chevalier de l'Ordre de la Santé Publique, France; in 1958 he received the first Storm van Leewen Medal in Leiden, Holland; and in 1962 gave the first John Freeman Oration in London.

Burrage, in discussing Rackemann's various interests, stated:

"All is not allergy that wheezes." This observation may also be applied to his interests which were not confined to allergy alone. His broad outlook led to his membership in numerous organizations in the guidance of many of which he actively participated. These included, in addition to his outstanding contributions to the Climatological, the American Society for Clinical Investigation, the Association of American Physicians, the Massachusetts Benevolent Society, of which he was president, the American Academy of Arts and Sciences, and as trustee and chairman of the Board of the Boston State Hospital. . . . Few New England members of the Climatological will forget a regional celebration in 1963 when 100 percent of their number accepted an invitation and appeared at the Country Club in Brookline for a dinner and evening with Frank Rackemann. The guest of honor presided at the piano

and held a competition to see who could recognize the largest number of his lantern slide photographs of members taken over past years at annual meetings of the Association.

Rackemann's practice was a large and devoted one. His office occupied the ground floor of his old Beacon Street brownstone family house which, in its busier days, was augmented by several connecting rooms in an adjacent apartment house to accommodate a technician and a number of loyal associates. Even then, the traffic was sometimes so heavy that other members of the Rackemann family had to push their way between waiting patients to climb the stairs to their living quarters. Each new patient on arrival stood by his desk while he took a picture with his old Brownie camera. These snapshots were pasted on the front of the patient's record. Following a detailed workup, a report of history, findings and recommendations would soon be mailed to the referring physician with a copy to the patients. Months later, atopic patients would often be surprised to receive an unannounced home call by Rackemann to see if his instructions had been carefully followed (and if not, to have him explain to the remainder of the family the necessity of finding another home for their pet dog or cat). On other occasions, their allergist might be seen departing for his car carrying under his arm a guilty feather pillow. The Rackemann summer cottage in Cataumet on Cape Cod gave him an opportunity to withdraw from his intensive medical activities and to spend short periods in the summer with his family. Of particular delight to him was his adjacent boathouse, which he himself designed, where he could work on his boat, read, write papers, or try to take a nap without being disturbed.

Many remember the stimulating walks in the afternoon led by Rackemann at meetings of the Clinical and Climatological. His enthusiasm for the organization, his warm welcome to new members, and his constant pursuit of any avenue that might contribute to the increasing success of the organization made him one of its leading members during its century of existence.

JAMES BORDLEY III 1941-1950

James Bordley III⁶ was born in Centreville, Maryland on December 7, 1900 and died in Cooperstown, New York on January 6, 1979. He graduated from Yale University with a Ph.B. degree in 1923 and from the Johns Hopkins University School of Medicine in 1927. Bordley received the William H. Howell Award for Medical Research in 1926 and was a National Research Council fellow in medicine from 1930 to 1932; during this time, he worked with Professor Alfred Newton Richards of the University of Pennsylvania when Richards was doing his pioneer work on the mechanism of urine formation.

Bordley served as intern and assistant resident physician in medicine at the Johns Hopkins Hospital from 1927 to 1930 and was chief resident physician under Warfield Theobald Longcope from 1932 to 1934. He was associate professor of medicine (1937–47) at the Johns Hopkins University School of Medicine. While there, he served as editor of the *Bulletin of The Johns Hopkins Hospital* for several years.

Bordley was on leave of absence for military service from April 1942 to February 1946. He was one of the organizers of the Johns Hopkins Unit, the 118th General Hospital, and went to Australia as chief of medicine of the unit in May 1942. While in the Philippines, Colonel Bordley was awarded the Bronze Star Medal “for meritorious achievement in direct support of combat operations on the Island of Leyte.”

In 1947 he left Baltimore to become director and physician-in-chief of the Mary Imogene Bassett Hospital in Cooperstown, New York, and was made clinical professor of medicine at Columbia University, with which the Bassett Hospital was affiliated. At the end of 1966, Bordley retired from his positions in Cooperstown and spent the year 1967 in Taiwan as visiting professor of medicine at the Chinese National Defense Medical Center in Taipei, and medical consultant to the U.S. Naval Medical Research Unit Number 2, also located in Taipei. He served as medical advisor to President Chiang Kai-shek and his family.

For a number of years Bordley, in association with various collaborators including Robert Wilkins, Charles Reagan, Caroline Bedell Thomas, and Ludwig Eichna, conducted studies on the natural history of essential hypertension. He contributed important papers on renal physiology, diseases of the kidney, vascular physiology, blood pressure, medical education, and hospital administration. Bordley and A. McGehee Harvey were joint authors of two medical books, *Differential Diagnosis: The Interpretation of Clinical Evidence* and a history of American medicine entitled *Two Centuries of American Medicine*.

Bordley contributed most effectively to the success of the Association. He served as secretary from 1941 to 1950 and was president in 1957 when the 70th annual meeting was held in Hot Springs, Virginia. The title of his address on that occasion was “Whales: A Taste of Pelagic Climatology”—an excellent example of his scholarship and the breadth of his cultural and scientific interests.

Jim Bordley was truly a renaissance physician. A skilled clinician, he made one of the first premortem diagnoses of atrial myxoma, if not the first. A. N. Richards, in a dinner address at the Interurban Clinical Club in Philadelphia in 1961, credited Bordley with developing many of the colorimetric methods used in analyzing the micropuncture fluids obtained from glomeruli and tubules in those epochal experiments. Bordley will be long remembered by his many friends in this country and abroad as a

creative scholar, meticulous editor, talented author, resourceful administrator, and a delightful companion.

MARSHALL NAIRNE FULTON 1950-1958

In 1923, in support of Marshall Fulton's⁷ application to medical school, his college professor of biology wrote as follows: "Mr. Fulton is one of the best all around men we have ever had in the department, both in point of scholarship and personal capacity and general qualities of a gentleman." This brief but well-directed appraisal, written early in Marshall's career, predicted with remarkable accuracy his future accomplishments. In all of his endeavors, he distinguished himself. Awards and honors were repeatedly his. These he accepted graciously, but they in no way altered his sense of values of his "way of life." Marshall Fulton was always a modest, warm, cultured, scholarly, dignified, unselfish, entertaining and inspiring friend. He loved people and he maintained an intimate friendship with so many, by visits, by letter, or by an unexpected call to say "Merry Christmas" or "Happy Birthday." Marshall Fulton charmed many on numerous occasions with his music, which was his lifetime love. At one time or another he played a number of instruments, but in later years limited himself to the piano—and there are many who will remember his well received renditions at the Climatological meetings.

Born in Keokuk, Iowa, on March 10, 1899, Marshall graduated from the Keokuk High School in 1916. He then entered Brown University and though he experienced a hiatus during World War I, he graduated in 1920 with academic honors with recognition of his leadership in a number of diverse extracurricular activities. Marshall was appointed a Rhodes Scholar in 1920 and at Merton College, Oxford, received a B.A. degree with honors in physiology. In 1925, he received the M.D. degree from the Johns Hopkins University School of Medicine. After internship and residency at the Peter Bent Brigham Hospital, Marshall became a full-time faculty member and director of the department of medicine laboratory at the Harvard Medical School. He pursued an academic career until World War II. From 1942 to 1946 he served in the Army Medical Corps, being discharged with the rank of colonel. He was initially stationed at Walter Reed General Hospital as chief of the cardiovascular section; was later chief of medicine at the Valley Forge Hospital; and finally was chief of medicine at Ashford General Hospital, White Sulphur Springs. After leaving the military service, Marshall entered private practice in Providence, Rhode Island where he continued his academic pursuits. At various times he served as physician-in-chief at the Rhode Island Hospital and professor of medicine at Brown University. Marshall was a member of the American Society for Clinical Investigation, the Association of American Physicians, the American College of Physicians

(in which he served consecutively on both the Board of Governors and Board of Regents, and was elected chairman of the Board of Governors and first vice-president).

Among his many awards were the Legion of Merit, U.S. Army, in 1946; honorary doctor of science degree, Brown University in 1960; a Mastership from the American College of Physicians in 1971; the prestigious Alfred Stengel Award “for outstanding service to the college in an official capacity”; and the W. W. Keen Distinguished Service Award, Brown Medical Association in 1976.

In his early life in Keokuk, he began a close relationship with his uncle, Dr. Frank Fulton, of Providence, Rhode Island. During his entire undergraduate period at Brown, Marshall lived with “Uncle Frank,” and their intimate discussions profoundly influenced his thinking. Frank Fulton was a member of the third class (1899) to graduate from the Johns Hopkins University School of Medicine. During his high school and college years, Marshall learned of Osler and Osler’s writings from his uncle. Osler and, of course, Uncle Frank were his heroes. Moreover, by good fortune, Marshall became known to Lady Osler soon after his arrival at Oxford, and a close friendship developed, all of which Marshall related delightfully in a paper entitled “On Being a Latchkeyer at 13 Norham Gardens, Oxford, 1920–23” and read at the annual meeting of the American Osler Society, May 11, 1977, only five days before his death.

Despite a heavy professional schedule, Marshall always had time for his wife, his eight children, and five grandchildren—a close-knit family. There were regular family reunions, and they traveled together and visited each other frequently. After the Osler Society meetings, Dr. and Mrs. Fulton visited in Keokuk, then went to Denver to be with three of their children. It was there that Marshall had his fatal heart attack on May 16, 1977.

FREDERIC TREMAINE BILLINGS, JR. 1958–1968

Josh Billings⁸ was born on February 22, 1912 in Pittsburgh, Pennsylvania. He graduated from Princeton University in 1933. During the following three years, he was a Rhodes Scholar at Oxford University (Balliol College), receiving the Master of Science. He then entered the Johns Hopkins University School of Medicine and was awarded his M.D. in 1938. The following year he was an intern on the Osler Medical Service. He then went to Nashville as an assistant resident in medicine on the service of Hugh Morgan. The following year he returned to Baltimore as senior assistant resident in medicine during the year that A. McGehee Harvey was the medical resident under Dr. Warfield T. Longcope on the Osler Medical Service. In 1941–42, Josh was Hugh

Morgan's chief resident at the Vanderbilt University Hospital in Nashville. On February 21, 1942, he married Ann Howe, whose charm has captivated all of the members of the Climatological for many years. In 1942, Josh Billings joined the Johns Hopkins Unit (118th General Hospital) and served in Australia and in the Philippines. During the latter part of the war he returned to Washington, D.C. and was an assistant to General Hugh Morgan, who was the chief consultant for the Army Medical Corps during World War II.

After the war, Josh returned as an instructor in medicine to Vanderbilt and established himself in the practice of medicine there. He rose to the rank of clinical professor of medicine at Vanderbilt University School of Medicine, becoming Emeritus in 1977. From 1950 to 1961 he was professor of medicine at the Meharry Medical College in Nashville, and from 1960-1967 he was dean of medical students at Vanderbilt.

From 1946 on he gave devoted service to the Vanderbilt Medical School, being especially active after 1960. He was continuously a member of the executive faculty and among the committees on which he served were: Admissions, Clinical Research Center, Curriculum, Dean's Committee for the Veteran's Administration Hospital, Fellowships and Scholarships, Internships and Residencies, Promotions Committee, and Student Affairs Committee (of which he was chairman). He was also chairman of the Planning Board for the Cardiovascular Research and Training Center and chairman of the committee to search for a director of the medical library, as well as a member of several other departmental search committees.

In spite of carrying on a busy practice, Josh continued to contribute to the clinical literature, publishing until 1981 some 48 papers relating to almost every aspect of clinical internal medicine as well as problems dealing with medical care, the selection of medical students, and other important subjects.

Josh Billings was a very worthy successor to Francis Rackemann and Marshall Fulton as the secretary of the Climatological. He and his lovely wife Ann breathed a spirit of camaraderie into the organization, and their enthusiasm and intense participation did much to determine the success of the meetings from the viewpoint of all of the members as well as their wives.

Legend are the stories of the antics of Josh and Ann going to, at, and after meetings of the Climatological. After the meeting at Hilton Head, at which Josh was president, his Gordon Wilson lecturer, Eric Cruickshank, Betty and Bud Earle, and the Billingses, as well as some of the liquor that they had had to buy because it could not be purchased at Hilton Head, were driving back in the Billings's Checker Sedan. This was a two-day cross-country jaunt from Hilton Head to Nashville and in the middle of Georgia, while Josh fruitlessly looked for a Gulf filling

station, they ran out of gas. Billings hitchhiked to the nearest gas station, brought the gas back, and when he arrived at the car found a very happy cocktail party in progress.

Josh finally let the author in on the secret of why the Climatological met at French Lick in Indiana. There had been a great deal of enthusiasm for having one of the meetings in Bermuda. This sounded like an excellent idea but the first consideration regarding a place to have a meeting is to gather the largest number of members, both active and emeritus. So he held a poll of the membership. All were asked about a trip to Bermuda. One hundred and fifty answered; 50 yes, 50 no and 50 undecided. This did not seem to him to be too favorable so at the last minute he had to change his arrangements for the meeting in Bermuda to some place in the United States. The only place which would accommodate the meeting at the last minute was French Lick, that huge sulfurous home of Pluto Water, where the Climatological shared space with the convention of the Timkin Ballbearing Company employees, and where Ed Rose, as president, gave his magnificent address—complicated, erudite, scholarly, and, of course, without use of a single note.

There is not enough room to recount the many other stories, but these are sufficient to illustrate what the enthusiasm, vigor, and good humor of the Billings's duet has meant to the success of the Climatological.

J. EDWIN WOOD III 1968–1979

J. Edwin Wood III⁹ was born in Charlottesville, Virginia on February 5, 1925. He attended Davidson College, had assignments to Duke University and the University of Virginia during the war, and completed his medical education at Harvard in 1949. During his high school, college and medical school years, he worked as a laboratory assistant under Eugene Landis at the University of Virginia and at the Harvard Medical School.

After medical school graduation, Wood began his house officer training at Boston University under Chester Keefer. His residency years were interspersed with research fellowship years under Robert W. Wilkins. From 1951 to 1953, Wood served as a flight surgeon in the United States Air Force at the School of Aviation Medicine at Randolph Field. Much of his time there was spent in research involving problems of high-altitude physiology. He studied the peripheral pooling of blood in the veins during the breathing of high-pressure gas mixtures, which had practical application to high-altitude flights in which cabin pressures were insufficient to maintain life without additional pressure in the air that was breathed—a superb background for later membership in the Climatological.

Upon his return to Boston University, Wood embarked on an extensive

series of studies of venomotor responses of man in physiological as well as disease states.

Wood then became director of cardiovascular research at the Medical College of Georgia (1959-64). He held the same position at the University of Virginia from 1964-69. He carried out investigations into peripheral vascular responses, with special emphasis on the responses in heart failure, hypertension and anemia; in addition, problems involving changes in environmental temperature, exercise and various pharmacological stimuli were evaluated. This work was eventually summarized in a book entitled *The Veins*.

Wood served briefly as associate dean at the University of Virginia before becoming director of medicine at the Pennsylvania Hospital and professor of medicine at the University of Pennsylvania. He is a member of the American Society for Clinical Investigation, the Association of American Physicians and the American Physiological Society.

RICHARD J. JOHNS 1979-

Richard J. Johns¹⁰ was born in Pendleton, Oregon on August 19, 1925. He graduated from the University of Oregon and received his M.D. degree from the Johns Hopkins University School of Medicine in 1948. After a year of internship on the Osler Medical Service at Johns Hopkins, Johns spent two years on active duty with the U.S. Army Medical Corps, where he was assigned to the Army Chemical Center to engage in neurophysiological research. He returned to the Osler house staff in 1951 for two years of assistant residency and has continued his professional career at Johns Hopkins. From 1953-1955 he was a research fellow in the department of medicine, working in the research laboratories of David Grob and A. M. Harvey. In 1955-56 he was the resident physician of the Osler Medical Service and then moved through the academic ranks from instructor in 1955 to professor of medicine in 1966. In 1970, he was named Massey Professor and director of the newly organized department of biomedical engineering.

Johns's interest in research began while he was a medical student. The shift from the accelerated to the conventional schedule at the end of World War II provided him with an opportunity to work for an extended period in the laboratory of Samuel A. Talbot, who was at the time collaborating with A. M. Harvey and Joseph L. Lilienthal, Jr. in developing instruments which would permit study of neuromuscular function in man. While in the Army, Johns extended his interests in neuropharmacology with studies of cholinesterase inhibitors and acetylcholine antagonists on central neural function. This led, upon completion of his residency training, to participation in studies of neuromuscular function in man. These studies demonstrated that the basis for the neuromuscular

block in myasthenia gravis was a diminution of acetylcholine effect. Further studies delineated the mode of action of a variety of pharmacological agents that affect neuromuscular transmission. Investigation of a series of patients with familial periodic paralysis revealed that the weakness was caused by a failure of spread of electrical excitation from the endplate to the muscle. This, together with the direct demonstration of an anomalous shift of potassium from serum into muscle, indicated that hyperpolarization of the muscle membrane was the pathophysiologic defect. Further work on this problem led to the development of techniques which for the first time permitted the measurement of transmembrane potentials in man.

The development in his laboratory of biomechanical techniques for the analysis of joint stiffness led to a series of studies of arthritis, connective tissue and neurological disorders associated with abnormal stiffness. The major findings were that increased plastic stiffness (not elastic or frictional stiffness) accounted for almost all of the increased stiffness in various forms of arthritis as well as the increasing stiffness seen in aging. The studies of the mechanical aspects of the stiffness in Parkinsonism led to studies of the disordered control of movement in this disease. Here it was found that the patient's disordered movement in performing a tracking task was the result of his inability to switch to a rapid ballistic method of movement during the initial phases of a given movement.

In recent years Johns has focused his research activities on engineering solutions to biochemical problems. One example is the development of a system that produces and displays true three-dimensional radiographic images. He has also been involved in developing computer-based clinical information systems.

Johns is a member of the Biophysical Society, the American Society for Clinical Investigation, and the Association of American Physicians. He was a member and chairman of the Medical Board of the Myasthenia Gravis Foundation. He has been a member of the National Institutes of Health Biomedical Engineering Fellowship Review Committee and their Medical Laboratory Sciences Review Committee. He has been active in the Institute of Electrical and Electronics Engineers as president of the Group on Engineering in Medicine and Biology, an associate editor of the *Transactions on Biomedical Engineering* and a member of the Editorial Board of the *Proceedings of the TEEE*. He was president of the Biomedical Engineering Society, is a Fellow of the American Association for the Advancement of Science, and was the secretary of the Section on Medical Sciences. He was president and is a trustee of the American Board of Clinical Engineering.

Appendix B

THE GORDON WILSON LECTURESHIP

The success of any medical organization depends on a few talented and enthusiastic individuals who make the work of the society one of their major objectives in life. Such a man was Alfred Lebbeus Loomis, the first president of the Climatological; another was Gordon Wilson,¹ who died on Wednesday, October 26, 1932. He was greatly missed by his fellow members in the Association, for few members had given their time and energy to the society so fully and so enthusiastically as did Gordon Wilson.

Born on November 30, 1876, Wilson was the son of John A. and Ellen Gordon Wilson. He attended the Episcopal High School at Alexandria, Virginia, spent two years in the academic department of the University of Virginia, and received his medical degree from that university in 1899.

In 1908 he married Miss Elizabeth Preston Elliot of Baltimore and established his residence at 12 Whitfield Road.

Shortly after his graduation from the University of Virginia, he was appointed as assistant resident physician of the Johns Hopkins Hospital, having charge of the private pavilions under William Osler. The following year he was a resident fellow in pathology under William Henry Welch. Wilson had a keen, eager mind with the faculty of seeing clearly and of stating succinctly what he had seen. Neither Welch nor Osler had many pupils more fitted by nature to benefit from service under them. Wilson had a passion for his profession in which, while fully alert to all the advances of science, he always gave the first place to the physician. In his teaching and writing alike he continually strove to stimulate the general practitioner to the full realization of his opportunities and responsibilities. Few men had such a capacity for friendship and no one was ever more selfish in his devotion to his friends or to his work. It was this characteristic, coupled with his rare ability as a teacher, that gave him such a hold on his pupils and his fellow physicians. Nothing gave him keener delight than when a student or an intern noted something he himself had overlooked in a case under discussion.

Wilson started practice in Baltimore in 1902 and was appointed chief in the medical dispensary in the University of Maryland that same year. His special abilities as a teacher and clinician soon were evident and he was steadily advanced, until in 1913 the University made him professor of medicine and head of the medical department, a position he held until 1922. Wilson volunteered for service when the United States entered the First World War; he was assigned to the Base Hospital at Camp Meade, Maryland, in the fall of 1917, holding the rank of Major. Under the stress

of overwork, his health gave way to such an extent that his friends maneuvered his discharge from the service. Wilson then set about the task of regaining his health so that he could renew his own practice.

He always had a special interest in tuberculosis, having had the disease in his student days. In 1907, he was appointed visiting chief of the Baltimore Municipal Hospital for Tuberculosis. Students recognized his great qualities as a clinician and teacher and under his influence came to regard this tuberculosis service as one of the most interesting in their medical school career. Patients chose to go there rather than to one of the sanitariums away from Baltimore. Only a talented physician and a rare spirit could have, in those days, established a waiting list for the tuberculosis ward of a poorhouse.

Next to his family and his personal practice, Wilson's greatest interest was in the Climatological, to which he was elected in 1910 and which he served as president in 1924, as a member of the Council, and finally as chairman of the Committee on Admissions. From the day he joined, his enthusiasm for the organization was unbounded. Eager as he was, however, to see it develop as the leading society for the advancement of clinical medicine, he realized that the bond of friendship which was one of its chief traditions was also its greatest asset. He loved the spirit of give and take in the discussions and through all his work as chairman of the Committee on Admissions, he held out for the preservation of this spirit. It was not enough that a nominee be known as a good clinician, a student and a worker. If he would not be able to look on his fellow members as his personal friends and to uphold his side of the discussion without rancor then, in Gordon's eyes, he was not qualified for membership.

On February 20, 1933 Dr. Louis Hamman wrote to Francis M. Rackemann:

Last fall when Lawrason Brown was in Baltimore, he spoke to me about the Clinical and Climatological Association establishing a memorial for Gordon Wilson who worked so faithfully and insistently for the development of the society. He suggested that the most appropriate form of memorial would be to have a medal cast which the Association would give each year to some physician who had especially distinguished himself in clinical medicine. The selection of the man would depend not so much upon his original contributions as upon his clinical ability and the influence he had exerted in promoting the best interest of clinical medicine. He pointed out that at present there is no particular reward for clinical work and that it would be desirable to have some distinction conferred upon outstanding clinical ability.

The suggestion met with my hearty approval and I meant to bring it up at the meeting of the Council last fall. When that meeting was postponed I decided to bring it up at the spring meeting. However, Walter Baetjer and Laurie Brown both have been interested in the matter and they apparently have had some correspondence about it. I have just received a letter from Baetjer enclosing one to him from Brown

who sends a check for \$25.00 as his contribution to the project. It is very desirable that, if possible, the medal be conferred upon someone at the spring meeting. He suggested that the man chosen for the honor be asked to give a Gordon Wilson Memorial Lecture at the meeting and then receive the medal.

It may perhaps be too late to proceed with the plan for this year, but if it cannot be arranged this year then I hope the suggestion will be favorably received and a memorial lecture may be inaugurated at the following meeting. I think the die (for the medal) will not cost over \$100.00 and thereafter to strike off the medal would be relatively inexpensive.

At the meeting of the Council on Tuesday afternoon, May 9, 1933, it was voted to establish the Gordon Wilson Medal for clinical excellence, to be awarded each year by the Association; that a committee of three, consisting of Dr. Lawrason Brown, Dr. Walter Baetjer, and Dr. David Lyman, should cause the medal to be made and recommend to the Council the first person to whom the medal should be awarded; that this committee should solicit the funds from the friends of Dr. Wilson to defray the expense. It was also voted that any slight charge necessary for the first medal be supplied out of the funds of the treasury. The only dissenter was Dr. A. K. Krause, who felt that the Association could do much more in a productive way by establishing a lectureship in his (Wilson's) own university: "on that subject which he has associated with our name which is not only the oldest form of therapy but upon which there has never yet appeared a really scientific paper—that is, on the effects of climate."

The next mention of the Gordon Wilson Memorial Fund was a letter dated April 30, 1934, written by Lawrason Brown to Dr. Charles D. Parfitt, then the president of the Climatological:

I think it would be very nice if the Climatological would sponsor each year some movement helpful to the medical profession in general. We have had a good deal of correspondence about the Gordon Wilson Memorial Fund. We concluded that it would be a very wise thing to have the first lecture given, say at the 1935 meeting, by Dr. William Fisher, a surgeon of Baltimore, connected with the Johns Hopkins, and a very close friend of Dr. Wilson. We thought it would be nice if he could be introduced and a few words said about Gordon Wilson by Dr. David Lyman at that time.

In 1935 the members of the Committee addressed themselves further to the question of the medal and lectureship, recommending that the accomplishments necessary for award of the medal should be judged: a) by a reputation of unusual clinical ability among his associates; b) by his ability as a teacher of clinical medicine; and c) by his contributions to clinical medicine. The fact that a physician had made valuable laboratory investigations did not bar him from receiving the medal, but should he be selected the award must be made for his clinical excellence without consideration of his laboratory investigation. Any physician practicing in North America might be a candidate for the medal whether or not he was a member of the American Clinical and Climatological.

The matter was once more brought before the Council at the Richmond meeting in October 1936. President Gorham reported that the committee, consisting of Drs. Baetjer and Lawrason Brown, had independently subscribed \$500 for the preparation of a die for the medal; the award might be given to distinguished clinicians who would be invited to come and present lectures before this society at its annual meetings. The Council in that year took a positive stand in the matter, recommending that the Gordon Wilson Memorial Lectureship be established and that the Council take the responsibility of raising a special fund.

On October 29, 1936, Rackemann wrote to James E. Paullin, the new president of the Climatological: "We were all delighted that you are the new president. We discussed the Gordon Wilson Memorial and finally decided to go ahead to organize the Gordon Wilson Lectureship and invite the first speaker, granting him an honorarium of \$100 and a copy of the medal. I personally am quite delighted that Warfield Theobald Longcope was chosen as the first Gordon Wilson lecturer."

From October 11 to 13, 1937, the 54th annual meeting of the Climatological was held in Baltimore under the presidency of James E. Paullin. The major attraction of the meeting, of course, was the first Gordon Wilson Lecture. Warfield T. Longcope, professor of medicine at The Johns Hopkins University School of Medicine, was introduced by James S. McLester, who spoke well of Gordon Wilson and his role in the development of the Climatological into a national society of internal medicine; and of Dr. Longcope as a longtime thorough student of the kidney and its diseases. The lecture, entitled "Some Observations on the Course and Outcome of Hemorrhagic Nephritis," was delivered in the easy, straightforward style of the master. Everyone was immensely pleased with the Gordon Wilson Medal and with its first recipient.

The second Gordon Wilson Lecture was given by Henry Asbury Christian, professor of medicine at Harvard and physician-in-chief of the Peter Bent Brigham Hospital, whose title was "A Glomerular Dominance in Bright's Disease."

The third Gordon Wilson Lecture was given by George R. Minot on the subject of the anemias of nutritional deficiency which he delivered at the 1939 meeting of the society in Saranac Lake. At the 1940 meeting, Dr. Rollin T. Woodyatt talked "On the Theory of Diabetes."

At the 1941 meeting, the Gordon Wilson Lecture was presented by Alfred Blalock and was described as masterful. Dr. Waring, the president, reviewed Blalock's achievements and the career of Gordon Wilson. Dr. Blalock gave a splendid talk on the physiology and treatment of shock and everyone was both interested and impressed. In presenting the medal, Dr. Waring spoke with great feeling; in reply, Dr. Blalock was most appreciative. Among other things, he spoke of his pleasure in finding a group of physicians quite equal in character and interest to his surgical

friends and it occurred to him as unfortunate that physicians and surgeons did not meet together more often. The meetings of either one would be leavened by the presence of the other. He thought that to have a sort of combined medical society might be very effective, just as a hospital ward in which the physicians could see the thyroid storm and the surgeons could see the management of pneumonia would be instructive to all. Surely the Gordon Wilson Lecture had become an important event in the annual menu of medicine in this country.

In 1946, Dr. René J. Dubos gave the Gordon Wilson Lecture on "The Experimental Analysis of Tuberculous Infections." That same year, the Council adopted a motion proposed by Dr. Rackemann that all Gordon Wilson lecturers of past years be elected to honorary membership in the Association. President Burwell, in asking the members to consider this recommendation, pointed out that there was no regular provision in the constitution regarding the technique of electing honorary members and that no honorary members had been elected since 1931. The Council felt that it would be appropriate to expand the list of honorary members by electing the Gordon Wilson lecturers of past years. The Council did not wish to extend this into the future because future Wilson lecturers might be eminently suitable for active membership. The secretary read the names of the Gordon Wilson lecturers who would be elected if the Council's recommendation were approved: W. T. Longcope, H. A. Christian, G. R. Minot, R. T. Woodyatt, and Alfred Blalock. Dr. J. E. Wood, Jr. directed attention to the fact that Dr. Minot was already an active member, and he doubted the propriety of making him an honorary member. In response, Dr. Minor and Dr. Fremont-Smith suggested that the Council's recommendation be amended by the insertion of the words "who are not already members." It was then moved by T. Grier Miller "that all Gordon Wilson lecturers of past years who are not already members, be elected to honorary membership in the Association." The motion was regularly seconded and passed.

GORDON WILSON LECTURES

Year	Lecturer	Title
1937	Warfield T. Longcope, M.D.	Some Observations on the Course and Outcome of Hemorrhagic Nephritis
1938	Henry A. Christian, M.D.	A Glomerular Dominance in Bright's Disease
1939	George R. Minot, M.D.	Anemias of Nutritional Deficiency
1940	Rollin T. Woodyatt, M.D.	On the Theory of Diabetes
1941	Alfred Blalock, M.D.	Shock or Peripheral Circulatory Failure
1946	René Jules Dubos, Ph.D.	The Experimental Analysis of Tuberculous Infections
1947	Cecil J. Watson, M.D.	Some Aspects of the Porphyrin Problem in Relation to Clinical Medicine

- 1948 Hans Selye, M.D. On the General-Adaptation-Syndrome
- 1949 Joseph E. Smadel, M.D. The Changing Status of Rickettsioses
- 1950 Wilder Penfield, M.D. The Mechanism of Memory
- 1951 André Cournand, M.D. Clinical and Physio-Pathologic Considerations in Certain Types of Pulmonary Granulomata and Fibroses
- 1952 Joseph Stokes, Jr., M.D. Viral Hepatitis
- 1953 George W. Thorn, M.D. Studies on the Adrenal Cortical Response to Stress in Man
- 1954 Allen O. Whipple, M.D. The Splenic Circulation in Relation to Certain of the Splenopathies
- 1955 John F. Enders, Ph.D. Observations on Certain Viruses Causing Exanthematous Diseases in Man
- 1956 Lee E. Farr, M.D. Man, Medicine, and the Atom
- 1957 Joseph W. Ferrebee, M.D. Factors Affecting the Survival of Transplanted Tissues
- 1958 Ivan L. Bennett, M.D. Fever: Experimental Studies
- 1959 Raymond D. Adams, M.D. Nutritional Diseases of the Nervous System in the Alcoholic Patient
- 1960 Arnold R. Rich, M.D. Visceral Hazards of Hypersensitivity to Drugs
- 1961 William B. Castle, M.D. A Century of Curiosity about Pernicious Anemia
- 1962 Jerome W. Conn, M.D. Some Clinical and Climatological Aspects of Aldosteronism in Man
- 1963 Albert H. Coons, M.D. Current Theories of Antibody Formation
- 1964 Joseph F. Ross, M.D. Ionizing Radiation and the Development and Survival of Life
- 1965 Alfred Gellhorn, M.D. Clinical and Laboratory Aspects of Medical Oncology
- 1966 E.B.A. Astwood, M.D. Growth Hormone—1966
- 1967 Robert A. Good, Ph.D. and Joanne Finstad, M.D. The Development and Involution of the Lymphoid System and Immunologic Capacity
- 1968 Tinsley R. Harrison, M.D. Heart Disease and Heart Failure: Some Recent Progress and Some Future Challenges
- 1969 Eric K. Cruickshank, M.D. Clinical Syndromes Associated with Plant Toxins in Jamaica
- 1970 James G. Hirsch, M.D. The Digestive Tract of Cells
- 1971 Albert L. Lehninger, Ph.D. Mitochondria and the Physiology of Ca^{2+}
- 1972 Eugene Braunwald, M.D. Investigations on Protection of the Ischemic Myocardium
- 1973 G.D. Auerbach, M.D. Biosynthesis, Secretion and Mechanisms of Action of Parathyroid Hormone
- 1974 Robert S. Schwartz, M.D. Searching for the Cause of Systemic Lupus Erythematosus
- 1975 J. Fraser Mustard, M.D. The Function of Blood Platelets
- 1976 Allan L. Goldstein, Ph.D. The History of the Development of Thymosin: Chemistry, Biology and Clinical Application
- 1977 Theodore T. Puck, Ph.D. The New Cell Biology and its Implications for Medicine
- 1978 Christian J. Lambertson, M.D. Undersea Medicine—The Limits of Human Tolerance

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| 1979 | Daniel Nathans, M.D. | The New Genetics |
| 1980 | Richard T. Johnson, M.D. | Viruses and Chronic Neurological Diseases |
| 1981 | Russell Ross, M.D. | Atherosclerosis—A Response to Injury Gone
Awry |
| 1982 | Robert J. Lefkowitz, M.D. | Adrenergic Receptors: Regulation at the Bio-
chemical, Physiological and Clinical Levels |
| 1983 | Paul E. Lacy, M.D. | The Prevention of Immune Rejection of Islet
Transplants Without the Use of Immunosup-
pressive Drugs |

Appendix C

THE JEREMIAH METZGER LECTURESHIP

Following the death of Dr. Jeremiah Metzger¹ on May 26, 1958, the Association received a bequest from his estate for the sum of \$5,000. It was decided by the Council to invest this sum in government bonds and apply the income to the general fund.

Dr. Metzger had been a semi-invalid for some seven years following three heart attacks. Prior to that time, he had been a very active member of the Climatological. Metzger was born in Oak Harbor, Ohio, on December 9, 1876. He attended Ohio State University for one year and the University of Michigan for three years. He graduated from Rush Medical College in 1901, then had a year of postgraduate study at the University of Berlin and spent time with Dr. Auguste Rollier in Switzerland. In 1941, Metzger was appointed by Governor Sidney P. Osborn of Arizona as superintendent of the Arizona State Hospital. At this time, this insane asylum was a political football. Dr. Metzger took over the responsibility of changing it into a real hospital for the mentally ill.

Metzger settled in Tucson in 1911 for his own health, and the treatment of tuberculosis was his major interest during his professional life. He was responsible for the construction of the first private sanitarium for tuberculosis patients in Tucson. In addition to his interest in pulmonary diseases, he also gave much attention to the fields of psychiatry and psychology.

At its meeting on November 3, 1963 at the Homestead, Hot Springs, Virginia, the Council discussed the use of the income from the Metzger fund. A decision was made to maintain its use under the direction of the Council. It was decided further, for the 1964 meeting, to request the president to select a member of the Association to deliver a paper on his own work, allowing him 30 minutes and offering him an honorarium of \$100. This plan would be on trial and subject to change at the discretion of the Council. The plan worked well and in subsequent years there has been an annual Metzger Lecture delivered by a member of the Association.

JEREMIAH METZGER LECTURES

Year	Lecturer	Title
1964	John Eager Howard, M.D.	Urinary Stone
1965	Grant W. Liddle, M.D.	Analysis of Circadian Rhythms of Adrenal Secretions
1966	John P. Merrill, M.D.	What Can We Do for the Patient with Renal Failure?

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| 1967 | Stewart Wolf, M.D. | Neural Mechanisms in Sudden Cardiac Death |
| 1968 | Robert W. Wilkins, M.D. | Clinical and Climatological Observations on Hypertension |
| 1969 | James B. Wyngaarden, M.D. | The Pathophysiology of Hyperuricemia in Gout |
| 1970 | A. McGehee Harvey, M.D. | Myasthenia Gravis—The First 100 Years in Perspective |
| 1971 | Marvin D. Siperstein, M.D., Ph.D. | The Relationship of Cholesterol Biosynthesis to Cancer |
| 1972 | George F. Cahill, Jr., M.D. | Ketosis |
| 1973 | Richard B. Hornick, M.D. | Salmonella Infections—Newer Perspectives of an Old Infection |
| 1974 | Jacques Genest, M.D. | The Renin-Angiotensin System |
| 1975 | Victor A. McKusick, M.D. | New Genetic Insight into Old Diseases |
| 1976 | Robert M. Bird, M.D. | Information Transfer in the Service of Medicine |
| 1977 | Robert Austrian, M.D. | Of Gold and Pneumococci |
| 1978 | Carl W. Gottschalk, M.D. | The Nephrons in Bright's Disease: Their Structure and Function |
| 1979 | Sheldon M. Wolff, M.D. | The Pathogenesis of Fever in Human Subjects |
| 1980 | Charles C. J. Carpenter, M.D. | Myths, Mandarins and Molecules: The Cautionary Tale of Cholera |
| 1981 | Leighton E. Cluff, M.D. | The Climate of Patient Care and Medical Education |
| 1982 | Daniel D. Federman, M.D. | The Determinants of Human Sexuality |
| 1983 | Purnell W. Choppin, M.D. | Membrane Proteins and Virus Virulence |

Appendix D

SOME AUTUMNAL RECOLLECTIONS

Throughout this volume one will find episodes and anecdotal tales gleaned from the memory banks of various members. These serve to give a glimpse of the delightful flavor of the meetings. A few members have sent a more composite account of what lingers in their recollections of the various meetings they have had the privilege of attending.

David Earle, president in 1978, sent a long letter from which the following comments are excerpted:

Regarding the scientific programs: the Wilson lecture, and later, the Metzger lectures, have been outstanding reviews of the important basic advances. With rare exception these lectures have been the high points of the programs.

Some of the outstanding Wilson lectures include: Arnold Rich's "Visceral Hazards of Hypersensitivity to Drugs" in 1960, Castle's "A Century of Curiosity about Pernicious Anemia" in 1961, Astwood's "Growth Hormone" in 1966, Harrison's "Heart Disease and Heart Failure" in 1968, Lehninger's "Mitochondria and the Physiology of Ca^{2+} " in 1971, Goldstein's "Thymosin" in 1976, Puck's "The New Cell Biology and its Implications for Medicine" in 1977, and Nathan's "The New Genetics" in 1979.

An anthology of the Wilson and Metzger lectures, perhaps issued every ten years, would be useful to all scholarly physicians.

Many of the scientific presentations gave us insight into new, and sometimes old, developments. A few outstanding presentations are listed below:

1963—Joe Holmes' update on "Ultrasound Diagnostic Techniques" (first discussed at the 1954 meetings) surely anticipated by many years the great clinical value of this technique.

1966—Dick Hornick and Ted Woodward's report on the ineffectiveness of typhoid vaccine confirmed the fear of many, and I believe led to concerted efforts to improve the vaccine, which is now available.

1967—George Cahill's "Starvation and Survival" was fascinating.

1971—This year had a number of outstanding papers: Wolf's "Lesson from the Sea for Medicine," Beck's "Growth Hormone," Kunkel's "Varied Nature of the Immune Deficiency Status," and Genest's "New Evidence of Disturbances of Mineralocorticoids in Benign Uncomplicated Hypertension."

1981—Most impressive of all I have heard was Rudy Kampmeier's "Acute Syphilis: Long Term (Upwards to 35 Years) Follow-Up of a Penicillin Treated Group"—Precise science, compassionate, effective clinical approach which resulted in a most heart-warming report.

Mixed with these were a number of not-strictly-scientific papers that were delightful. These include: Christy's "On Fear of Serpents and Ophiolatry" in 1967, Findley's "Sappington's Anti-Fever Pills and Westward Migration" in 1969, and Christy's "Gustav Mahler and His Illnesses" in 1967.

Needless to say, all Presidential Addresses and the after-dinner speeches were instructive, entertaining and much fun. It's hard to single out any particular item—our organization seems to have a very appropriate sense of the times. However, Lew Dexter's Presidential Address in 1972 on "The Chair and Venous-Thrombosis" was provocative, particularly for women worried about varicose veins, and absolutely delightful for all.

Here are a very few anecdotes: 1964—First meeting at the Broadmoor—Many from the East and Midwest traveled by train, first to Denver, and then the car was switched that morning to Colorado Springs. We were fortunate to be next to the Walter Palmers—Walter reminisced, pin-pointing specific areas (e.g. hills and passes where they rode horseback, and as a family later re-explored) where he lived and worked in his younger days. At a small station (“Jerk Water”?) where we stopped briefly, Walter recalled that as a boy he had brought water, and sold popcorn to the passengers. He also pointed out the building where his father practiced medicine. 1965—Somehow at the 1965 Williamsburg meeting the orchestra did not show up for the dinner dance. However, after-dinner drinks and passage of time led to the gathering of a number of people with excellent voices, and the singing went on to the wee hours. Henry Ricketts and Marshall Fulton were the leaders, aided and abetted by several contraltos and sopranos. 1965 (or perhaps 1974)—Some from the Midwest traveled by train to Williamsburg. As we settled into our compartment we observed that Florence and C. Philip Miller had two adjoining compartments which they had opened up into a single large area. Dr. Miller already had his tie off, slippers on, and was comfortably stretched out, ready to watch the passing scene. This set the tone for a wonderful trip. People from Cincinnati later joined the Chicago group, and we were amazed to travel through a snow storm in the Virginia mountains, and to end up enjoying balmy days in Williamsburg. 1973—Another meeting at the Broadmoor. For a bit of nostalgia I arranged train transportation with Amtrak from Chicago to Denver for a hardy group of about 20. Everything went wrong. We had been promised a special meeting place in the Chicago station, special handling of luggage, and single car ahead of time. None of these came off. And our President that year, John Eager Howard and his wife, were put in a car as far away as possible from the car where the rest of us were located. And when we arrived in Denver early Sunday morning, no one connected with Amtrak knew about the bus we had been promised to take us to Colorado Springs. But finally a kindly bus driver was found who rescued us from our dilemma, even though he had to give up his day off. 1975—Bermuda. After many Council meetings where Bermuda had been suggested but voted down, the Council finally decided to poll the membership. The vote for Bermuda was overwhelming. And all agreed that the Bermuda meeting was a great success. President Abernethy’s address on the Bermuda Triangle was most appropriate.

On a personal note, Betty and I have attended all but two of the meetings since 1961. As you probably know, Betty is a “night person,” and rarely gets up before 9 or 10 a.m. Therefore, she has missed most of the business meetings. But in 1977 at the Broadmoor, when she knew that I was to be nominated for President, she arrived at the meeting room some minutes before the business meeting was to begin. When “E” Harvey and Mimi Tilghman saw her come in they laughed out loud and said: “Now we know what a sleepy ‘tip-off’ she was.”

Chuck Carpenter successfully captures the spirit of the Climatological in describing the zeal of A. Murray Fisher for the Association:

Although I am a relatively new member, I got the feeling of the esprit of the Climatological through Murray Fisher, who was one of the most enthusiastic members, both active and emeritus, for 35 years. The Climatological was clearly the professional organization which was most meaningful to him, and I don’t think he missed more than one meeting from 1946 to 1972; he actually attended several meetings after that.

In reviewing Murray’s contributions in preparation of his obituary, I noticed that during the 20-year period from 1946 to 1966, there were only two meetings in which he does not appear in the *Transactions*, either as the author of a paper, or in the recorded discussions of papers presented. He seemed to feel that every paper deserved

at least some discussion, and seemed to feel that it was discourteous to the author if no discussion followed presentation of the manuscript. Although some of Murray's comments appear, in retrospect, to have been more courteous than substantive, there are also a number which were respectfully critical of the data which had been presented. At any rate, his spirit of free, open and wide-ranging discussion of all papers presented, as well as his critical comments, always couched in respectful and courteous terms, very much capture one of the essential elements in the esprit of the Climatological.

I might add that Murray also contributed in a large way by presenting some of his best clinical research for the first, and sometimes the only, time at the Climatological. The presentation of important original clinical investigations, which is perhaps less commonly done at the present, is something which we should try to preserve in the future.

Another element in the unique esprit of the Climatological, which I am sure has been commented on by virtually all of the members, is that it is the only national medical meeting of which I am aware in which the wives (perhaps spouses will be a more appropriate term in the future) have been an absolutely essential ingredient. It is the only medical meeting which Sally regularly attends with me, and I know that this is true for many other members of the Climatological. I have also been impressed by the fact that the wives are as much a part of the organization as their husbands; Lu Fisher continued to attend the meetings, with Sally and me, even after Murray was no longer able to participate actively. I am not aware of any other medical organization in which the wives have been made to feel so much a part of the organization—another critical element of the esprit which characterizes the Climatological.

Ed Orgain has added to our delightful heritage by his thoughtful reminiscences of various events since his first meeting in 1951 when John Minor was president:

My most vivid memories of the Association's meetings were recorded during my first meeting, November 4, 1951, at Skytop Lodge, Skytop, Pennsylvania, following my election in the fall of 1950 at Stockbridge, Massachusetts.

The weather was cold and the frozen ground was covered by a light blanket of snow which prevented golf and tennis, and even walking was difficult and unpleasant.

A large portion of the membership was present in spite of the inclement weather, there being 105 active members and 14 emeritus members registered for the meeting.

I was impressed by the attitude of the membership that the Association was a close family affair and by the friendliness of everyone present.

The meeting was conducted in an atmosphere of intense interest without the raw antagonism evident in some academic scientific meetings. Discussions were welcome and free and with no rancor evident ever.

Being a southerner by birth and inclined to warm weather for meetings, I wondered why no meetings had ever taken place south of the great state of Virginia since 1884, and only four had taken place west of the Mississippi River (Denver, Los Angeles, San Francisco, and Colorado Springs).

As Freshman member, and knowing Dick Tufts, whose family owned the Pinehurst Corporation in North Carolina, I offered, through a Council member, to inquire whether or not they could accommodate a future Association meeting, but no overt action was taken on my offer.

The first meeting in the southern states south of Virginia was held some years later in 1966 at Ponte Vedra, Florida; later in 1969 at Hilton Head Island, South Carolina; and finally in 1978 at Pinehurst, North Carolina.

My first presentation before the Association was made November 4, 1953 at the Homestead in Hot Springs, Virginia. It was positioned by the President, Hugh Morgan, as the final paper of the program on Wednesday morning. Much to my dismay, only a handful of members remained at the meeting to hear it (my lesson—"Never give the last paper on any scientific program if you want your message to be heard").

At this time, I made the strong suggestion that the new members attending meetings for the first time be given a lapel flower to wear for identification so that the older members might make them welcome at the social gathering on Sunday as well as at the meetings themselves beginning Monday, and that each new member be introduced to the Association at the initial meeting on Monday morning. This was finally accomplished and has been a tradition honored each year since.

As I recall, the best major change in the meeting tradition was the abolition of separate dinners for ladies and men and their meeting together later for a joint session. This, I believe, was abolished by George Thorn during his presidential year.

The funniest presentation was delivered by Bill Bean at a Tuesday evening dinner about abdominal navel architecture entitled "Omphalosophy." Only those who heard the presentation can remember the hilarious details.

Appendix E

FORMER OFFICERS

PRESIDENTS

<i>Name</i>	<i>Year</i>
A. L. LOOMIS	1884-5
WILLIAM PEPPER	1886
FRANK DONALDSON	1887
A. L. LOOMIS	1888
VINCENT Y. BOWDITCH	1889
CHARLES DENISON	1890
FREDERICK I. KNIGHT	1891
W. E. FORD	1892
R. G. CURTIN	1893
A. H. SMITH	1894
S. E. SOLLY	1895
J. B. WALKER	1896
E. FLETCHER INGALS	1897
E. O. OTIS	1898
BEVERLEY ROBINSON	1899
ABRAHAM JACOBI	1900
ROBERT H. BABCOCK	1901
SAMUEL A. FISK	1902
NORMAN BRIDGE	1903
JAMES C. WILSON	1904
W. F. R. PHILLIPS	1905
E. L. SHURLY	1906
THOMAS DARLINGTON	1907
THOMAS D. COLEMAN	1908
CHARLES E. QUIMBY	1909
EDWARD R. BALDWIN	1910
JOHN WINTERS BRANNAN	1911
ALEXANDER D. BLACKADER	1912
CHARLES L. MINOR	1913
JAMES M. ANDERS	1914
HENRY SEWALL	1915
JAMES ALEXANDER MILLER	1916
JUDSON DALAND	1917
JABEZ H. ELLIOTT	1918
GUY HINSDALE	1919
LAWRASON BROWN	1920
CARROLL E. EDSON	1921

<i>Name</i>	<i>Year</i>
WILLIAM DUFFIELD ROBINSON	1922
CHARLES W. RICHARDSON	1923
GORDON WILSON	1924
GEORGE W. NORRIS	1925
DAVID R. LYMAN	1926
WALTER A. BAETJER	1927
JOSEPH H. PRATT	1928
WILLIAM LEROY DUNN	1929
J. WOODS PRICE	1929
GERALD B. WEBB	1930
GEORGE MORRIS PIERSOL	1931
LOUIS HAMMAN	1932
GEORGE R. MINOT	1933
CHARLES D. PARFITT	1934
WALTER R. STEINER	1935
L. WHITTINGTON GORHAM	1936
JAMES E. PAULLIN	1937
ALPHONSE R. DOCHEZ	1938
ALVAH H. GORDON	1939
WILLIAM B. PORTER	1940
JAMES J. WARING	1941
C. SIDNEY BURWELL	1942-6
T. GRIER MILLER	1947
FRANCIS M. RACKEMANN	1948
MAURICE C. PINCOFFS	1949
JOHN T. KING	1950
JOHN MINOR	1951
CHESTER M. JONES	1952
HUGH J. MORGAN	1953
ROBERT L. LEVY	1954
HENRY M. THOMAS, JR.	1955
FRANCIS C. WOOD	1956
JAMES BORDLEY, III	1957
JOHNSON MCGUIRE	1958
GEORGE W. THORN	1959
MARSHALL N. FULTON	1960
WORTH B. DANIELS	1961
EDWARD ROSE	1962
CHESTER S. KEEFER	1963
CHARLES W. WAINWRIGHT	1964
FRANCIS D.W. LUKENS	1965
CECIL J. WATSON	1966

<i>Name</i>	<i>Year</i>
WILLIAM B. BEAN	1967
HOWARD P. LEWIS	1968
F. TREMAINE BILLINGS, JR.	1969
THEODORE E. WOODWARD	1970
A. MCGEHEE HARVEY	1971
LEWIS DEXTER	1972
JOHN EAGER HOWARD	1973
H. ST. GEORGE TUCKER, JR.	1974
THEODORE J. ABERNETHY	1975
STEWART WOLF	1976
S. GILBERT BLOUNT, JR.	1977
DAVID P. EARLE, JR.	1978
RICHARD S. ROSS	1979
R. CARMICHAEL TILGHMAN	1980
JAMES W. HAVILAND	1981
GEORGE P. CAHILL, JR.	1982
ROBERT J. GLASER	1983
ROBERT AUSTRIAN	1984

VICE-PRESIDENTS

F. I. KNIGHT, W. H. GEDDINGS	1884-5
FRANK DONALDSON, BEVERLEY ROBINSON	1886
V. Y. BOWDITCH, R. G. CURTIN	1887
A. Y. P. GARNETT, J. T. WHITTAKER	1888
J. R. LEAMING, E. T. BRUEN	1889
A. L. GIHON, H. B. BAKER	1890
E. L. TRUDEAU, T. S. HOPKINS	1891
E. FLETCHER INGALS, BEVERLEY ROBINSON	1892
A. H. SMITH, E. O. OTIS	1893
I. HULL PLATT, E. L. TRUDEAU	1894
JOHN H. MUSSER, G. R. BUTLER	1895
CHARLES E. QUIMBY, JAMES A. HART	1896
S. A. FISK, JOHN C. MUNRO	1897
BEVERLEY ROBINSON, C. F. MCGAHAN	1898
JAMES A. HART, R. C. NEWTON	1899
R. H. BABCOCK, J. W. BRANNAN	1900
ALBERT C. PEALE, S. W. LANGMAID	1901
NORMAN BRIDGE, W. F. R. PHILLIPS	1902
JAMES C. WILSON, H. S. ORME	1903
THOMAS DARLINGTON, THOMAS D. COLEMAN	1904
S. G. BONNEY, S. D. RISLEY	1905

<i>Name</i>	<i>Year</i>
A. D. BLACKADER, HENRY SEWALL	1906
FRANK FREMONT-SMITH, C. L. MINOR	1907
JUDSON DALAND, CHARLES FOX GARDINER	1908
E. R. BALDWIN, C. E. EDSON	1909
JAMES M. ANDERS, H. LONGSTREET TAYLOR	1910
WILL HOWARD SWANN, JOHN H. LOWMAN	1911
HERBERT MAXON KING, CARROLL E. EDSON	1912
JAMES M. ANDERS, C. D. ALTON	1913
LAWRASON BROWN, WILL HOWARD SWANN	1914
ARTHUR K. STONE, JAMES ALEXANDER MILLER	1915
PHILIP KING BROWN, HENRY M. BRACKEN	1916
W. L. DUNN, JABEZ H. ELLIOTT	1917
W. G. SCHAUFFLER, H. M. BRACKEN	1918
JOSEPH H. PRATT, H. M. KINGHORN	1919
CHARLES W. RICHARDSON, J. N. HALL	1920
GORDON WILSON, ESTES NICHOLS	1921
COL. GEORGE E. BUSHNELL, CHARLES D. PARFITT	1922
WILL H. SWANN, GEORGE W. NORRIS	1923
ALEXIUS M. FORSTER, H. R. M. LANDIS	1924
DAVID R. LYMAN, PHILIP MARVEL	1925
EARL A. BRUNS, EDWIN A. LOCKE	1926
JOHN A. LICHTY, GEORGE M. PIERSOL	1927
GEORGE D. PORTER, JAMES S. MCLESTER	1928
J. WOODS PRICE, THOMAS A. CLAYTOR	1929
JOHN P. SAWYER, RAY W. MATSON	1930
CHARLES N. MEADER, WALTER C. KLOTZ	1931
PAUL H. RINGER, WILLIAM BRANCH PORTER	1932
JAMES E. PAULLIN, THOMAS C. KELLY	1933
CHARLES H. COCKE, ROY D. ADAMS	1934
THOMAS KLEIN, JOHN T. KING, JR.	1935
ALVAH H. GORDON, CHAUNCEY W. DOWDEN	1936
JOHN B. HAWES, II, RALPH H. MAJOR	1937
JOHN H. MUSSER, JAMES J. WARING	1938
ROBERT WILSON, RUSSELL L. HADEN	1939
J. BURNS AMBERSON, JR., HARRY A. BRAY	1940
BENJAMIN M. BAKER, FRANK A. EVANS	1941
MAURICE C. PINCOFFS, FRANCIS M. RACKEMANN	1942-6
JOHN MINOR, JOSEPH T. WEARN	1947
JOHN T. KING, LEWIS J. MOORMAN	1948
LORNE C. MONTGOMERY, J. EDWIN WOOD, JR.	1949
A. CARLTON ERNSTENE, RAY F. FARQUHARSON	1950
JULIAN M. RUFFIN, WILLIAM B. TERHUNE	1951

<i>Name</i>	<i>Year</i>
F. JANNEY SMITH, JOHN B. YOUMANS	1952
CHARLES R. AUSTRIAN, DONALD S. KING	1953
DAVID T. SMITH, CHARLES W. WAINWRIGHT	1954
JAMES M. FAULKNER, JOHNSON MCGUIRE	1955
FRANCIS D. W. LUKENS, J. EARLE MOORE	1956
EDWARD ROSE, WILLIAM S. MIDDLETON	1957
A. MURRAY FISHER, THEODORE J. ABERNETHY	1958
WORTH B. DANIELS, MARSHALL N. FULTON	1959
BYRD S. LEAVELL, CECIL J. WATSON	1960
A. MCGEHEE HARVEY, WALTER L. PALMER	1961
THOMAS FINDLEY, RICHARD P. STETSON	1962
WILLIAM B. BEAN, RICHARD B. CAPPS	1963
HOWARD P. LEWIS, STEWART WOLF	1964
ROGER O. EGEBERG, RICHARD W. VILTER	1965
SAMUEL P. ASPER, JR., THOMAS W. MATTINGLY	1966
LEWIS DEXTER, ARTHUR J. MERRILL	1967
GEORGE F. CAHILL, JR., THOMAS M. DURANT	1968
GEORGE S. MIRICK, TRUMAN G. SCHNABEL, JR.	1969
HARVEY C. KNOWLES, JOHN P. MERRILL	1970
ROGER S. MITCHELL, HENRY T. RICKETTS	1971
LEWIS B. FLINN, THORNTON SCOTT	1972
JAMES W. HAVILAND, THOMAS A. WARTHIN	1973
S. GILBERT BLOUNT, JR., EDMUND R. YENDT	1974
ROBERT J. GLASER, HARRISON J. SHULL	1975
ERNEST CRAIGE, HARPER K. HELLEMS	1976
FRANK H. GARDNER, TRUMAN G. SCHNABEL, JR.	1977
FRANK P. BROOKS, RICHARD J. JOHNS	1978
HERBERT G. LANGFORD, A. CALHOUN WITHAM	1979
WILLIAM C. THOMAS, JR., HARRY F. ZINSSER, JR.	1980
SAMUEL P. ASPER, JR., ROBERT AUSTRIAN	1981
FRED ALLISON, JR., ORVILLE HORWITZ	1982
RICHARD W. VILTER, RALPH TOMPSETT	1983
THOMAS H. HUNTER, JAMES A. CLIFTON	1984

SECRETARY-TREASURERS

JAMES B. WALKER	1884-95
GUY HINSDALE	1895-1918
ARTHUR K. STONE	1918-33
FRANCIS M. RACKEMANN	1933-41
JAMES BORDLEY, III	1941-50
MARSHALL N. FULTON	1950-58

<i>Name</i>	<i>Year</i>
F. TREMAINE BILLINGS, JR.	1958-68
J. EDWIN WOOD, III	1968-79
RICHARD J. JOHNS	1979-

RECORDERS

WILLIAM DUFFIELD ROBINSON	1918-21
CLEAVELAND FLOYD	1921-30
FRANCIS B. TRUDEAU	1930-46
DAVID STRAYHORN	1946-63
H. ST. GEORGE TUCKER, JR.	1963-74
DOUGLAS GORDON CARROLL, JR.	1974-78
NICHOLAS P. CHRISTY	1978-

Appendix F

DECEASED MEMBERS

*ORIGINAL MEMBERS

<i>Date of Election</i>		<i>Date of Death</i>	<i>Date of Election</i>		<i>Date of Death</i>
1888	ABBOTT, GRIFFITH E., Brooklyn	1926	1936	BLACKFORD, STAIGE D., Charlottesville, Va.	1949
1938	ABBOTT, W. OSLER, Philadelphia	1943			
1921	ADAMS, ROY D., Virginia Beach, Va.	1966	1948	BLAIN, DANIEL B., Philadelphia	1982
1897	ALDEN, CHARLES H., Pasadena, Calif.	1906	1946	BLALOCK, ALFRED, Baltimore	1964
1890	ALLEN, HARRISON, Philadelphia	1897	1936	BLANTON, WYNDHAM B., Richmond	1960
1914	ALSEVER, WILLIAM D., Syracuse	1925	1914	BLUE, RUPERT, Washington, D.C.	1948
1897	ALTON, CHARLES D., Hartford, Conn.	1937	1897	BONNEY, S. G., Denver	1942
1922	AMBERSON, J. BURNS, Hillsdale, N.J.	1979	1939	BORDLEY, JAMES, III, Coopers-town, N.Y.	1979
1932	AMOSS, HAROLD L., Greenwich, Conn.	1956	1931	BORTREE, L. W., Colorado Springs	1971
1899	ANDERS, JAMES M., Philadelphia	1936	1937	BORTZ, E. L., Philadelphia	1971
1890	ANDERSON, BOSWELL P., Colorado Springs	1919	1948	BOSWORTH, HOWARD W., Malibu	1978
1932	ANDRUS, E. COWLES, Baltimore	1978	1889	BOWDITCH, HENRY I., Boston	1892
1951	APPEL, KENNETH E., Ardmore, Pa.	1979	1885	BOWDITCH, VINCENT Y., Boston	1929
1931	ARCHIBALD, EDWARD W., Montreal	1945	1937	BOWEN, BYRON D., Buffalo	1951
1884*	ARMOUR, S. G., Brooklyn	1885	1929	BRADBURY, SAMUEL, Philadelphia	1947
1950	ARMSTRONG, S. HOWARD, Chicago	1961	1931	BRADLEY, ERNEST B., Lexington, Ky.	1947
1900	ARNOLD, HORACE D., Brookline, Mass.	1935	1891	BRANNAN, JOHN W., New York	1936
1939	AUSTRIAN, CHARLES R., Baltimore	1956	1897	BRATTON, W. D., Albuquerque	1898
1893	BABCOCK, ROBERT H., Chicago	1930	1919	BRAY, HARRY A., Ray Brook, N.Y.	1956
1946	BADGER, THEODORE L., Chestnut Hill, Mass.	1980	1940	BREED, WILLIAM BRADLEY, Boston	1944
1917	BAETJER, W., Baltimore	1972	1894	BRIDGE, NORMAN, Los Angeles	1924
1915	BAILEY, WALTER C., Boston	1938	1965	BROWN, G. MALCOLM, Ottawa, Canada	1977
1946	BAKER, MYLES P., Boston	1983	1903	BROWN, LAWRASON, Saranac Lake	1937
1891	BALDWIN, EDWARD R., Saranac Lake	1947	1903	BROWN, PHILIP KING, San Francisco	1940
1941	BARKER, WILLIAM HALSEY, Baltimore	1949	1897	BROWN, SANGER, Kenilworth, Ill.	1928
1901	BARLOW, W. JARVIS, Los Angeles	1937	1947	BROWN, W. HURST, Toronto, Ontario	1964
1907	BARNES, HARRY L., Wallum Lake, R.I.	1934	1951	BROWNE, JOHN S. L., Montreal, Quebec	1984
1934	BARNWELL, JOHN BLAIR, Blairs-town, N.J.	1966	1907	BROWNING, CHARLES C., Los Angeles	1939
1925	BEARDSLEY, E. J. G., Philadelphia	1956	1884*	BRUEN, E. T., Philadelphia	1889
1957	BECKWITH, JULIAN R., Ivy, Virginia	1982	1919	BRUNS, EARL H., Denver	1933
1885	BELL, AGRIPPA, N., Brooklyn	1911	1956	BUNN, PAUL A., Syracuse, N.Y.	1970
1902	BERGTOLD, WILLIAM H., Denver	1936	1940	BURKE, H. E., Montreal	1971
1896	BERNARDY, E. P., Philadelphia	1905	1946	BURRAGE, WALTER S., Brookline, Mass.	1976
1956	BIRD, ROBERT M., Bethesda, Md.	1977	1933	BURWELL, C. SIDNEY, Boston	1967
1897	BLACKADER, ALEXANDER D., Montreal	1932	1909	BUSHNELL, GEORGE E., Pasadena, Calif.	1924
			1885	BUTLER, GLENTWORTH R., Brooklyn	1926
			1914	BYERS, JOHN RODDICK, Ganainoyne, Ontario	1963
			1885	CABELL, J. L., Millboro Depot, Va.	1888

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<i>Date of Election</i>		<i>Date of Death</i>		<i>Date of Election</i>		<i>Date of Death</i>
1884	CAMMANN, D. M., New York	1928	1925	DOCHEZ, ALPHONSE RAYMOND, New York		1964
1975	CAMPBELL, JAMES, Chicago	1983	1884*	DONALDSON, FRANK, SR., Baltimore		1891
1896	CAMPBELL, WILLIAM A., Colo- rado Springs	1929	1929	DOWDEN, CHAUNCEY W., Shelby- ville, Kentucky		1964
1967	CANADA, R. O., White Sulphur Springs, W. Va.	1973	1958	DUNCAN, GARFIELD G., Malvern, Pa.		1983
1948	CAPPS, RICHARD B., Chicago	1977	1905	DUNN, WILLIAM LEROY, Ashe- ville, N.C.		1928
1912	CARPENTER, FORD A., Los Angeles	1948	1947	DURANT, THOMAS M., Gladwyne, Pennsylvania		1977
1969	CARROLL, DOUGLAS G., JR., Baltimore	1977	1922	DURHAM, KENNON, Cincinnati		1944
1898	CASSELBERRY, WILLIAM E., Chicago	1916	1897	EDSON, CARROLL E., Denver		1930
1927	CAULFIELD, A. H. W., Toronto	1940	1903	ELLIOTT, JABEZ H., Toronto		1942
1925	CECIL, RUSSELL L., New York	1965	1802	ELSNER, HENRY L., Syracuse		1916
1919	CHADWICK, HENRY D., Waltham, Massachusetts	1960	1946	ELSON, KENDALL A., Philadelphia		1978
1887	CHAMPMAN, S. H., New Haven	1903	1950	EPPINGER, EUGENE, Chestnut Hill, Mass.		1980
1894	CHAPIN, FREDERICK A., Pomfret, Conn.	1903	1934	ERICKSON, REUBEN JOHAN, Santa Fe, N.M.		1959
1946	CHRISTIAN, HENRY A., Boston	1951	1936	ERNSTENE, A. C., Shaker Heights, Ohio		1971
1906	CLAYTOR, THOMAS A., Washing- ton, D.C.	1941	1885	ESKRIDGE, JEREMIAH T., Denver		1902
1898	CLEEMANN, RICHARD A., Philadelphia	1912	1927	EVANS, FRANK A., Pittsburgh		1956
1901	COBB, J. O., Los Angeles	1935	1931	FARLEY, DAVID LABAUVE, Richmond		1965
1922	COCKE, CHARLES HARTWELL, Asheville, N.C.	1944	1937	FARQUHARSON, RAY FLETCHER, Toronto, Ontario		1965
1894	COLEMAN, THOMAS D., Augusta, Ga.	1927	1912	FARRAND, LIVINGSTON, Ithaca, N.Y.		1939
1901	COLLINS, CHARLES F., New York	1953	1931	FARRIS, HUGH A., New Brunswick		1953
1925	COOKE, ROBERT A., New York	1960	1937	FAULKNER, JAMES, Brookline, Mass.		1980
1889	COOLIDGE, ALGERNON, JR., Boston	1939	1951	FERRIS, EUGENE B., Atlanta		1957
1935	COOPER, DAVID ALEXANDER, Philadelphia	1970	1951	FINDLEY, T., Augusta, Ga.		1974
1917	CRAIG, FRANK A., Haverford, Penna.	1959	1934	FINNEY, WILLIAM P. JR., Lake Geneva, Wisconsin		1955
1910	CRANE, BAYARD T., Rutland, Mass.	1937	1946	FISHER, A. MURRAY, Baltimore		1982
1918	CRANKSHAW, CHARLES W., West Hartford, Conn.	1960	1887	FISK, SAMUEL A., Brimfield, Mass.		1915
1885	CURTIN, ROLAND G., Philadelphia	1913	1941	FITZ-HUGH, THOMAS JR., Philadelphia		1963
1932	CUSHING, EDWARD HARVEY, Washington, D.C.	1970	1884*	FLINT, AUSTIN, SR., New York		1886
1907	DACOSTA, JOHN C., JR., Philadelphia	1919	1902	FLINT, WILLIAM H., Santa Bar- bara, Calif.		1930
1892	DALAND, JUDSON, Philadelphia	1937	1948	FLIPPIN, HARRISON F., Douglas- ville, Pennsylvania		1969
1885	DALY, WILLIAM H., Pittsburgh	1901	1910	FLOYD, C. V., Cambridge, Mass.		1974
1947	DANIELS, WORTH B., Washing- ton, D.C.	1978	1927	FONTAINE, BRYCE W., Memphis		1929
1890	DARLINGTON, THOMAS, New York	1945	1909	FORBES, N. HAY, Church Stret- ton, England		1916
1907	DARNALL, WILLIAM EDGAR, At- lantic City	1937	1885	FORD, WILLIS E., Utica, N.Y.		1931
1897	DAVIS, NATHAN S., JR., Chicago	1920	1917	FORSTER, ALEXIUS M., Colorado Springs		1954
1884*	DENISON, CHARLES, Denver	1909	1909	FOSTER, JOHN P. C., New Haven		1910
1940	DETWELLER, H. K., Ontario	1973	1914	FOX, R. FORTESCUE, London		1940
1956	DINGLE, J. II., Cleveland	1973	1927	FRAZER, THOMPSON, Newark, N.J.		1931
1910	DIXON, SAMUEL G., Harrisburg, Pa.	1918				

DECEASED MEMBERS

<i>Date of Election</i>		<i>Date of Death</i>	<i>Date of Election</i>	<i>Date of Death</i>
1887	FREMONT-SMITH, FRANK, Winter Park, Fla.	1922	1896	HEFFRON, JOHN L., Syracuse
1911	FULTON, FRANK TAYLOR, Providence	1961	1918	HEISE, FRED H., Trudeau, N.Y.
1936	FULTON, MARSHALL N., Bristol, Rhode Island	1977	1912	HENDERSON, YANDELL, New Haven
1930	FUNK, ELMER M., Philadelphia	1932	1927	HERMANN, GEORGE R., Del Rio, Texas
1898	GACHE, SAMUEL, Buenos Aires	1908	1941	HETHERINGTON, HUBERT W., Philadelphia
1948	GAMMON, GEORGE D., Andalusia, Pa.	1973	1958	HICKAM, JOHN B., Indianapolis
1896	GARDINER, C. FOX, Colorado Springs	1947	1940	HIGGINS, WILLIAM H., Richmond, Va.
1884*	GARNETT, ALEXANDER Y. P., Washington, D.C.	1888	1970	HILLS, A. G., Toledo, Ohio
1919	GARVIN, ALBERT H., Buffalo	1952	1956	HILLS, RALPH G., Baltimore
1926	GAUVAIN, SIR HENRY, M.D., Ch. Hampshire, England	1945	1893	HINSDALE, GUY, Charlottesville, Va.
1884*	GEDDINGS, W. H., Aiken, S.C.	1892	1902	HOAGLAND, HENRY W., Palm Springs, Calif.
1925	GEYELIN, H. RAWLE, New York	1942	1889	HODGES, WILLIAM D., Boston
1927	GIBBES, JAMES HEYWARD, Columbia, S.C.	1962	1914	HOLDEN, G. WALTER, Denver
1937	GIDDINGS, GLENVILLE, Atlanta	1959	1950	HOLMES, JOSEPH H., Denver
1927	GILBERT, G. BURTON, Colorado Springs	1951	1884*	HOOPER, FRANKLIN H., Boston
1884*	GLASGOW, WILLIAM C., St. Louis	1907	1932	HOUSTON, WILLIAM R., Austin, Texas
1922	GORDON, ALVAH H., Quebec	1953	1944	HOWLETT, KIRBY S., JR., Southbury, Conn.
1963	GORDON, EDGAR S., Madison, Wisc.	1974	1905	HUDDLESTON, JOHN H., New York
1916	GORGAS, WILLIAM C., Washington, D.C.	1920	1884*	HUDSON, E. DARWIN, New York
1921	GORHAM, L. WHITTINGTON, New York	1968	1940	HUNT, HENRY D., Saratoga Springs, N.Y.
1911	GRENFELL, SIR WILFRED T., St. Anthony, Newfoundland	1940	1892	HUTCHINSON, WILLIAM F., Providence
1907	GRIFFIN, WALTER A., Sharon, Mass.	1976	1884*	INGALS, E. FLETCHER, Chicago
1914	GROS, EDMUND L., Chester, Pa.	1942	1889	JACOBI, ABRAHAM, New York
1930	HABLISTON, CHARLES C., Baltimore	1935	1885	JARVIS, W. C., New York
1925	HADEN, RUSSELL L., Crozet, Va.	1952	1929	JENNINGS, ALPHEUS F., Detroit
1956	HALL, BYRON E., San Francisco	1964	1901	JENNINGS, CHARLES G., Detroit
1907	HALL, JOSIAH N., Denver	1939	1884*	JOHNSTON, HOMER A., Chicago
1950	HALSTED, JAMES A., Amherst, Mass.	1984	1915	JOHNSTON, COLLINS H., Grand Rapids, Michigan
1957	HAMBURGER, MORTON, Cincinnati	1970	1884*	JOHNSTON, W. W., Washington, D.C.
1912	HAMMAN, LOUIS, Baltimore	1946	1938	JONES, C. M., Boston
1893	HANCE, IRWIN H., Lakewood, N.J.	1929	1947	JONES, EDGAR, Nashville, Tenn.
1935	HANES, FREDERIC M., Durham, N.C.	1946	1940	JONES, O. R., New York
1922	HARLOW, WILLIAM P., Boulder, Colo.	1925	1934	JONES, T. DUCKETT, New York
1969	HARRISON, TINSLEY R., Birmingham, Alabama	1978	1910	KAHLO, GEORGE D., White Sulphur Springs
1933	HARROP, GEORGE A., Princeton, N.J.	1945	1885	KEATING, JOHN M., Philadelphia
1891	HART, JOSEPH A., Colorado Springs	1925	1933	KEEFER, C., Boston
1922	HART, WILLIAM M., Ottawa	1923	1926	KEIDEL, ALBERT, Baltimore
1914	HAWES, JOHN B. 2ND, Boston	1938	1928	KELLY, THOMAS C., Germantown, Pa.
1932	HAYES, J. N., Saranac Lake	1971	1932	KERN, RICHARD A., Wynnewood, Pa.
			1935	KING, DONALD S., Hanover, New Hampshire
			1904	KING, HERBERT MAXON, Liberty, N.Y.
			1925	KING, JOHN T., Baltimore
			1907	KINGHORN, HUGH M., Saranac Lake

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<i>Date of Election</i>		<i>Date of Death</i>	<i>Date of Election</i>		<i>Date of Death</i>
1899	KLEBS, ARNOLD C., Switzerland	1942	1937	MACKENZIE, GEORGE MINER, Cooperstown, N.Y.	1952
1922	KLEIN, THOMAS, Bala Cynwyd, Pa.	1970	1938	MACKIE, THOMAS T., Westport, Conn.	1955
1917	KLOTZ, WALTER C., New York	1941	1958	MACLEOD, C. M., New York	1972
1949	KNEELAND, YALE, Millbrook, New York	1970	1925	MAJOR, R. H., Kansas City, Kansas	1971
1884	KNIGHT, FREDERICK I., Boston	1909	1935	MANIER, JOHN OWSLEY, Nashville, Tenn.	1956
1967	KNOWLES, JOHN H., New York	1979	1929	MARCY, C. HOWARD, Pittsburgh	1959
1921	KRAUSE, ALLEN K., Providence	1941	1934	MARTIN, LAY, Baltimore	1977
1884*	KRETSCHMAR, PAUL H., Brooklyn	1891	1946	MARTIN, WALTER B., Norfolk, Va.	1966
1970	KUNKEL, HENRY, New York	1983	1902	MARVEL, PHILIP, Atlantic City	1938
1903	KYLE, D. BRADEN, Philadelphia	1916	1917	MARVIN, CHARLES F., Washington, D.C.	1943
1887	LANGMAID, SAMUEL W., North Sutton, N.H.	1915	1946	MATEER, JOHN G., Detroit	1966
1932	LATHROPE, GEORGE H., Huntington, W. Va.	1975	1917	MATSON, RALPH C., Portland, Oregon	1945
1928	LAWRENCE, CHARLES HENRY, Brookline, Mass.	1945	1917	MATSON, RAY W., Portland, Oregon	1934
1935	LAWRENCE, JOHN S., Redlands, Cal.	1983	1928	MAYER, EDGAR, New York	1975
1884*	LEAMING, JAMES R., New York	1893	1887	MAYS, THOMAS J., Philadelphia	1918
1949	LEAVELL, BYRD S., Charlottesville, Va.	1979	1902	MCBRIDE, JAMES H., Pasadena, Calif.	1928
1914	LEE, ROGER L., Brookline, Mass.	1966	1930	MCCAIN, PAUL PRESSLY, Sanatorium, N.C.	1946
1899	LE FEVRE, EGBERT, New York	1914	1920	MCCANN, W. S., Rochester, N.Y.	1971
1927	LEMANN, ISAAC I., New Orleans, La.	1937	1932	McCLELLAN, WALTER S., Bethesda, Md.	1974
1955	LEONARD, JOHN C., Hartford, Conn.	1966	1935	MCCONKEY, MACK, Saranac Lake	1958
1932	LEVY, ROBERT L., New York	1975	1894	MCGAHAN, CHARLES F., Aiken, S.C.	1910
1914	LICHTY, JOHN A., Clifton Springs, N.Y.	1932	1955	MC GEE, LEMUEL C., Wilmington, Delaware	1975
1952	LILIENTHAL, JOSEPH L., JR., Baltimore	1955	1947	MC GUIRE, JOHNSON, Cincinnati, Ohio	1977
1890	LINCOLN, RUFUS P., New York	1902	1921	MCLESTER, JAMES S., Birmingham, Alabama	1954
1908	LISTON, W. GLEN, Edinburgh, Scotland	1953	1925	McMILLAN, THOMAS M., Mobile, Alabama	1977
1918	LITCHFIELD, LAWRENCE, Philadelphia	1930	1949	MCNEE, SIR JOHN W., Hampshire, England	1984
1917	LLOYD, JOHN J., Rochester, N.Y.	1944	1929	MC PHEDRAN, F. M., Philadelphia	1972
1909	LOCKE, E. A., Wilton, New Hampshire	1971	1917	MEADER, CHARLES N., Denver	1966
1890	LOMBARD, HENRY C., Switzerland	1894	1915	MERCUR, WILLIAM H., Pittsburgh	1933
1912	LONGCOPE, WARFIELD T., Lee, Mass.	1953	1953	MERRILL, JOHN P., Boston, Mass.	1984
1885	LONGWELL, R. M., Santa Fe, N.M.	1894	1922	METZGER, JEREMIAH, Tucson, Ariz.	1958
1884*	LOOMIS, ALFRED L., New York	1895	1947	MIDDLETON, WILLIAM S., Madison, Wisconsin	1975
1896	LOOMIS, HENRY P., New York	1907	1919	MILLER, ARTHUR F., Kentville, Nova Scotia	1966
1955	LOOSLI, CLAYTON G., Los Angeles	1976	1905	MILLER, JAMES ALEXANDER, New York	1948
1913	LORD, FREDERICK T., Boston	1941	1928	MILLER, SIDNEY R., Baltimore	1949
1904	LOWMAN, JOHN H., Cleveland	1919	1932	MILLER, T. GRIER, Philadelphia	1981
1949	LUKENS, FRANCIS D. W., Pittsburgh	1978	1934	MILLS, CHARLES WILSON, Tucson, Ariz.	1945
1936	LUNT, LAWRENCE K., Santa Fe, N.M.	1968	1909	MINER, CHARLES H., Wilkes-Barre, Pa.	1959
1907	LYMAN, DAVID R., Wallingford, Conn.	1956			
1947	MACHELLA, THOMAS E., Philadelphia	1962			

DECEASED MEMBERS

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<i>Date of Election</i>		<i>Date of Death</i>	<i>Date of Election</i>	<i>Date of Death</i>
1899	MINOR, CHARLES L., Asheville, N.C.		1887	PEALE, ALBERT C., Washington
1934	MINOR, JOHN, Washington, D.C.	1928	1900	PEARCE, F. SAVAGE, Philadelphia
1925	MINOT, GEORGE R., Brookline, Mass.	1961	1930	PEPPER, O. H. PERRY, Villanova, Pa.
1953	MIRICK, GEORGE S., New York	1950	1884*	PEPPER, WILLIAM, Philadelphia
1947	MOHR, CHARLES F., San Diego	1983	1906	PERKINS, JAY, Providence, R.I.
1931	MONOD, GUSTAVE, Vichy, France	1960	1914	PHILIP, SIR ROBERT W., Scotland
1917	MONTGOMERY, CHARLES M., Oteen, N.C.	1932	1895	PHILLIPS, WILLIAM F. R., Charleston, S.C.
1891	MOORE, H. B., Colorado Springs	1932	1917	PIERSOL, GEORGE MORRIS, Wynnwood, Pa.
1933	MOORE, JOHN WALKER, Louisville, Ky.	1900	1947	PILLSBURY, DONALD M., Rosemont, Pa.
1937	MOORE, JOSEPH EARLE, Baltimore	1952	1926	PINCOFFS, MAURICE CHAS., Baltimore
1923	MOORMAN, LEWIS J., Oklahoma City, Okla.	1958	1887	PLATT, WALTER B., Baltimore
1887	MORGAN, ETHELBERT C., Washington, D.C.	1954	1917	PORTER, GEORGE D., Toronto
1930	MORGAN, HUGH J., Nashville, Tenn.	1891	1922	PORTER, WILLIAM BRANCH, Richmond, Va.
1909	MORGAN, JAMES D., Washington, D.C.	1961	1902	POTTENGER, F. M., Monrovia, Calif.
1932	MORRIS, WILLIAM H., Hamden, Conn.	1980	1905	PRATT, JOSEPH H., Boston
1977	MORSE, STEPHEN I., Brooklyn	1980	1917	PRICE, J. WOODS, Saranac Lake
1956	MOSELEY, VINCE, Charleston, S.C.	1980	1904	PRIOLEAU, WILLIAM H., Asheville, N.C.
1919	MOUNT, WALTER B., Montclair, N.J.	1918	1922	PRITCHARD, STUART, Battle Creek, Mich.
1890	MULHALL, J. C., St. Louis, Mo.	1900	1905	PRYOR, JOHN H., Buffalo
1933	MULHOLLAND, HENRY B., Charlottesville, Va.	1966	1881	QUIMBY, CHARLES E., New York
1949	MUSCHENHEIM, CARL, New York	1977	1928	RACKEMANN, F. M., Boston
1921	MUSSER, JOHN H., New Orleans, La.	1917	1891	RANSOM, C. C., New York
1885	MUSSER, JOHN O., Philadelphia	1912	1919	RATHBURN, WALTER L., Cassadaga, N.Y.
1953	NEWMAN, E. V., Nashville, Tenn.	1973	1884*	REED, BOARDMAN, Alhambra, Cal.
1907	NICHOLS, ESTES, Portland, Maine	1911	1890	REED, JACOB, Colorado Springs
1927	NICHOLSON, SAMUEL T., JR., Pottstown, Pa.	1966	1885	RICE, C. C., New York
1941	NICHOLSON, WILLIAM, Durham, N.C.	1974	1962	RICH, ARNOLD R., Baltimore
1917	NILES, WALTER L., New York	1911	1923	RICH, HERBERT M., Detroit
1915	NORRIS, GEORGE W., Dimock, Pa.	1966	1946	RICHARDS, D. W., New York
1888	NUNN, RICHARD J., Savannah, Ga.	1911	1901	RICHARDSON, CHARLES W., Washington
1884*	ORME, HENRY S., Los Angeles	1912	1904	RICHER, A. J., Quebec, Canada
1888	OTIS, E. O., Boston	1933	1957	RICKETTS, HENRY T., Chicago
1921	PACKARD, EDWARD N., Saranac Lake	1968	1946	RIGGINS, H. M., New York
1934	PADDOCK, BRACE W., Pittsfield, Mass.	1935	1917	RINGER, PAUL H., New York
1885	PALMER, A. B., Ann Arbor, Mich.	1888	1926	RIST, E., Paris
1913	PARFITT, CHARLES D., Toronto	1951	1927	ROBERTS, STEWART R., Atlanta
1888	PARRISH, JOSEPH, Burlington, N.J.	1890	1927	ROBEY, WILLIAM HENRY, Boston
1912	PATERSON, ROBERT C., Saranac Lake	1921	1884*	ROBINSON, BEVERLEY, New York
1938	PAUL, J. R., New Haven	1971	1890	ROBINSON, WILLIAM D., Philadelphia
1921	PAULLIN, JAMES E., Atlanta	1951	1902	ROCHESTER, DELANCEY, Buffalo
			1885	ROCHESTER, THOMAS F., Buffalo
			1802	ROE, JOHN O., Rochester, N.Y.
			1890	ROGERS, E. J. A., Denver
			1910	ROGERS, SIR LEONARD, Cornwall, England
			1923	ROLLIER, AUGUST, Leysin, Switzerland
			1932	ROOT, HOWARD F., Brookline, Mass.
			1934	ROSS, JAMES BROBIE, Montreal

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<i>Date of Election</i>		<i>Date of Death</i>	<i>Date of Election</i>		<i>Date of Death</i>
1891	RUEDI, CARL, Arosa, Switzerland	1901	1892	STONE, WILLIAM C., Lakewood, N.J.	1894
1940	RUFFIN, JULIAN MEADE, Durham, N.C.	1978	1890	STORNDART, A. C., Salt Lake City	1893
1920	RUFFIN, STERLING, Washington, D.C.	1919	1940	STRAYHORN, DAVID, Nashville, Tenn.	1980
1917	RUSSELL, NELSON G., Buffalo	1956	1925	STROUD, WILLIAM D., Philadelphia	1959
1951	RUSSELL, NELSON G., JR., Buffalo	1982	1911	STUPART, SIR ROBERT F., Toronto	1940
1904	SANDWICH, FLEMING M., London	1918	1932	STURGIS, CYRUS C., Ann Arbor, Mich.	1966
1918	SAWYER, JOHN P., Cleveland	1945	1898	SUNDERLAND, SEPTIMUS, London	1950
1947	SCHAFFER, ALEXANDER J., Baltimore	1981	1910	SWANN, JOHN W., Rochester, N.Y.	1949
1884*	SCHAUFFLER, EDWARD W., Kansas City, Mo.	1916	1901	SWANN, WILL HOWARD, Colorado Springs	1932
1905	SCHAUFFLER, WILLIAM G., Princeton, N.J.	1933	1892	TAYLOR, H. LONGSTREET, St. Paul, Minn.	1932
1926	SCHLEITER, HOWARD G., Pittsburgh	1947	1907	TAYLOR, J. GURNEY, Milwaukee	1956
1935	SCHNABEL, T. G., Philadelphia	1971	1896	TAYLOR, J. MADISON, Philadelphia	1931
1901	DESCHWEINIZ, E. A., Washington, D.C.	1904	1931	THOMAS, HENRY M., JR., Baltimore	1966
1931	SEVIER, JOHN ALSTON, Colorado Springs	1961	1887	THOMAS, J. CAREY, Baltimore	1898
1901	SEWALL, HENRY, Denver	1936	1910	THOMAS, JOHN D., Washington	1946
1915	SHATTUCK, G. C., Boston	1972	1929	THORBURN, GRANT, Waynesboro, Pa.	1966
1947	SHERMAN, W. B., New York	1971	1934	TRASK, JAMES DOWLING, New Haven, Conn.	1942
1918	SHORTLE, A. G., Albuquerque	1922	1885	TRUDEAU, EDWARD L., Saranac Lake	1915
1910	SHURLY, BURT R., Detroit	1950	1920	TRUDEAU, FRANCIS B., Saranac Lake	1956
1884*	SHURLY, ERNEST L., Detroit	1913	1957	TUCKER, WILLIAM B., Gainesville, Fla.	1979
1949	SIMMONS, JAMES S., Boston	1954	1884*	TYNDALE, J. HILGARD, Lincoln, Neb.	1929
1953	SKAVLEM, J. H., Cincinnati	1974	1885	VAN BIBBER, W. C., Baltimore	1892
1890	SMITH, A. ALEXANDER, New York	1915	1934	WAINWRIGHT, CHARLES W., Baltimore	1983
1885	SMITH, ANDREW H., Geneva, N. Y.	1910	1941	WALKER, HENRY, Richmond, Va.	1968
1919	SMITH, CHARLES E., St. Paul, Minn.	1921	1884*	WALKER, JAMES B., Philadelphia	1910
1927	SMITH, F. JANNEY, 36 Farms, Michigan	1966	1975	WANNAMAKER, LEWIS W., Minneapolis, Minn.	1983
1927	SMITH, JAMES H., Richmond, Va.	1953	1917	WARD, D. DeCOURCEY, Cambridge, England	1931
1933	SMITH, W. A., Charleston, S.C.	1971	1929	WARING, JAMES J., Denver	1962
1917	SMITH, WILLIAM H., Boston	1961	1936	WARNER, WILFRED P., Ottawa	1956
1925	SNOWDEN, ROY R., Pittsburgh, Pennsylvania	1969	1917	WATERS, BERTRAM H., New York	1927
1887	SOLLY, S. EDWIN, Colorado Springs	1906	1947	WATSON, CECIL J., Minneapolis, Minn.	1983
1927	SOPER, WILLARD B., New Haven	1939	1917	WEBB, GERALD B., Colorado Springs	1948
1925	SPRUNT, THOMAS P., Baltimore	1955	1902	WEBER, F. PARKES, London, England	1962
1911	STEINER, WALTER R., Hartford, Conn.	1942	1897	WEBER, SIR HERMANN, London	1918
1937	STETSON, RICHARD P., Chestnut Hill, Mass.	1983	1885	WEBER, LEONARD, New York	1912
1909	STEVENS, MARTIN L., Asheville, N.C.	1940	1951	WEINSTEIN, ALBERT, Nashville, Tenn.	1963
1919	STEWART, DAVID A., Ninette, Manitoba	1937	1884*	WESTBROOK, B. F., Brooklyn	1891
1890	STILLÉ, ALFRED, Philadelphia	1900			
1904	STONE, ARTHUR K., Framingham Centre, Mass.	1952			
1915	STONE, WILLARD J., Pasadena, Calif.	1943			

DECEASED MEMBERS

<i>Date of Election</i>		<i>Date of Death</i>	<i>Date of Election</i>		<i>Date of Death</i>
1896	WHITCOMB, HARRY H., Norristown, Pa.	1916	1910	WILSON, GORDON, Baltimore	1932
1922	WHITE, P. D., Boston	1974	1889	WILSON, H. M., JR., Pueblo, Colo.	1894
1940	WHITE, T. PRESTON, Charlotte, N.C.	1966	1884*	WILSON, JAMES C., Philadelphia	1934
1911	WHITE, WILLIAM CHARLES, Washington, D.C.	1947	1917	WILSON, ROBERT, Charleston, S.C.	1946
1898	WHITNEY, HERBERT B., Denver	1948	1967	WISWELL, JOHN G., Baltimore	1981
1957	WIGHTMAN, K. J. R., Ontario, Canada	1978	1929	WOLFERTH, CHARLES C., Philadelphia	1966
1904	WILDER, JOHN A., Denver	1911	1932	WOOD, J. EDWIN, JR., Charlottesville, Va.	1982
1897	WILLIAMS, CHARLES T., London	1912	1913	WOOD, NATHANIEL K., Cambridge, Mass.	1952
1898	WILLIAMS, HAROLD, Boston	1926	1946	WOODYATT, R. T., Chicago	1953
1885	WILLIAMS, HERBERT F., Brooklyn	1932	1917	WRIGHT, SIR ALMROTH, London	1947
1907	WILLIAMS, LEONARD L. B., London	1939	1933	WYCKOFF, JOHN H., New York	1937
1911	WILLIAMS, LINSLEY R., New York	1934	1901	WYMAN, WALTER, Washington, D.C.	1911
1938	WILMER, HARRY BOND, Philadelphia	1943	1934	YOUMANS, JOHN BARLOW, Franklin, Tenn.	1979

This list of deceased members is correct to May 1, 1984, the last day on which the printer could allow changes in the volume. Because several months often elapse between a member's death and our notification, the lists of deceased, active, emeritus, and honorary members should not be considered completely up-to-date.

Appendix G

PRESENT MEMBERS

HONORARY MEMBERS

Elected

- 1982 BUTTERFIELD, SIR JOHN W. H., Clinical School, Addenbrooke's Hospital, Hills Road, Cambridge CB2 2QQ England
1962 CASTLE, WILLIAM B., 22 Irving Street, Brookline, Massachusetts 02146

EMERITUS MEMBERS

Elected

- 1946 ABERNETHY, THEODORE J., Suite 300, 916 19th Street, N.W., Washington, D.C. 20006
1940 ADAMS, F. DENNETTE, 80 Craftsland Road, Chestnut Hill, Massachusetts 02167
1941 ALLAN, WARDE B., P.O. Box 97, Garrison, Maryland 21055
1958 ASPER, SAMUEL P., Education Commission for Foreign Medical Graduates, 3624 Market Street, Philadelphia, Pennsylvania 19104
1955 AUSTRIAN, ROBERT, Hospital of the University of Pennsylvania, Department of Research Medicine, Philadelphia, Pennsylvania 19104
1935 BAKER, BENJAMIN M., 9 East Chase Street, Baltimore, Maryland 21202
1938 BAKER, JAMES P., 107 McClung Street, Lewisburg, West Virginia 24901
1951 BEAN, WILLIAM B., Department of Internal Medicine, University of Iowa College of Medicine, Iowa City, Iowa 52242
1951 BEEBE, RICHARD T., Albany Medical College, Albany, New York 12208
1947 BILLINGS, F. TREMAINE, JR., 420 Medical Arts Building, 21st and Garland Avenue, S., Nashville, Tennessee 37212
1938 BLAND, EDWARD F., Massachusetts General Hospital, Boston, Massachusetts 02114
1962 BLOUNT, MAJ. GEN. ROBERT E., University of Mississippi Medical School, 2500 North State Street, Jackson, Mississippi 39216
1956 BLOUNT, S. GILBERT, JR., University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, Colorado 80262
1961 BLUEMLE, LEWIS W., JR., Thomas Jefferson University, 1025 Walnut Street, Philadelphia, Pennsylvania 19010

- 1972 BRADLEY, STANLEY E., Universitat Bern, Institut fur Klinische Pharmakologie, Murtenstrasse 35, Switzerland
- 1961 BROOKS, FRANK P., Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, Pennsylvania 19104
- 1949 BROWN, THOMAS MCP., 814 South 26th Place, Arlington, Virginia 22202
- 1951 BROWNE, JOHN S. L., 900 Sherbrooke Street, West, Apartment 100, Montreal 110, P.Q., Quebec, Canada
- 1952 BRUES, AUSTIN M., Argonne National Laboratories, 9700 South Cass-Room 203-J147, Argonne, Illinois 60439
- 1964 BURROWS, BELTON A., The Doctor's Building, 720 Harrison Avenue, Boston, Massachusetts 02118
- 1962 BUTT, HUGH R., Mayo Clinic, Rochester, Minnesota 55901
- 1965 CAMERON, DOUGLAS G., The Montreal General Hospital, 1650 Cedar Avenue, Montreal, H3G 1A4, Quebec, Canada
- 1961 CHALMERS, THOMAS C., Mount Sinai Medical Center, One Gustave L. Levy Place, New York, New York 10029
- 1962 CLAIBORNE, T. STERLING, 455 West Wesley Road, N.W., Atlanta, Georgia 30305
- 1961 CONNOR, THOMAS B., University of Maryland, School of Medicine, Baltimore, Maryland 21201
- 1954 COURNAND, ANDRÉ, College of Physicians & Surgeons, Columbus University, 630 W. 168th Street, New York, NY 10032
- 1954 CRAIGE, ERNEST, University of North Carolina, Department of Medicine, 338 Clinical Science Building 229H, Chapel Hill, North Carolina 27514
- 1966 CRISPELL, KENNETH R., University of Virginia Hospital, Health Sciences, P.O. Box 423, Charlottesville, Virginia 22908
- 1962 CULVER, PERRY J., Massachusetts General Hospital, Fruit Street, Boston, Massachusetts 02114
- 1954 DELP, MAHLON, 6131 Terrydale Road, Merriam, Kansas 66202
- 1949 DEXTER, LEWIS, 108 Upland Road, Brookline, Massachusetts 02146
- 1959 EARLE, DAVID P., JR., 764 Locust Street, Winnetka, Illinois 60093
- 1953 EBERT, ROBERT H., Milbank Memorial Fund, One East 75th Street, New York, New York 10021
- 1952 EGEBERG, ROGER O., Room 717-H, 200 Independence Ave., S.W., Washington, D.C. 20201
- 1961 ELIEL, LEONARD P., Veterans Administration Hospital, American Lake, Tacoma, Washington 98493
- 1952 ELLIS, DANIEL S., Suite 037B, 15 Parkman Street, Boston, Massachusetts 02114

- 1946 ELLIS, LAURENCE B., 319 Longwood Avenue, Boston, Massachusetts 02115
- 1948 EMERSON, KENDALL, JR., 81 Summit Avenue, Brookline, Massachusetts 02146
- 1978 FARBER, SAUL J., New York University School of Medicine, 550 First Avenue, New York, New York 10016
- 1949 FEENEY, NEIL, 27 Holton Avenue, Westmount, Montreal P.Q., Canada H34 2E9
- 1957 FILLEY, GILES F., University of Colorado Medical Center, Denver, Colorado 80262
- 1961 FITZ, REGINALD H., Box 505, Woodstock, Vermont 05091
- 1950 FLINN, LEWIS B., Cokesbury Village, Box 46, Hockessin, Delaware 19707
- 1954 FORKNER, CLAUDE E., P.O. Box 820, DeLand, Florida 32720
- 1957 FOSTER, FRANK P., 15 Pinewood Village, West Lebanon, New Hampshire 03784
- 1949 FRANCE, RICHARD, 5134 Stanford Drive, Nashville, Tennessee 37215
- 1974 FRIEDLICH, ALLAN L., Ambulatory Care Center, 15 Parkman Street, Suite 375, Boston, Massachusetts 02114
- 1954 FULLERTON, CHARLES W., Suite 716, 1414 Drummond Street, Montreal, Quebec, H3G 1W1, Canada
- 1960 FURMAN, ROBERT H., Eli Lilly and Company, 307 East McCarty Street, Indianapolis, Indiana 46285
- 1970 FUTCHER, PALMER H., 273 South Third Street, Philadelphia, Pennsylvania 19106
- 1960 GARDNER, FRANK H., University of Texas Medical Branch, Research Hematology-Oncology Laboratory, Galveston, Texas 77550
- 1964 GLASER, ROBERT J., The Henry J. Kaiser Family Foundation, 525 Middlefield Road, Menlo Park, California 94025
- 1949 GRAHAM, JOHN R., Faulkner Hospital, Allandale at Centre Street, Jamaica Plain, Massachusetts 02130
- 1957 GUNDERSEN, SVEN M., Box 206, Hanover, New Hampshire 03755
- 1966 HAGEMANN, PAUL O., 224 South Woods Mill Road, Suite 410, Chesterfield, Missouri 63017
- 1946 HARVEY, A. MCGEHEE, The Johns Hopkins University School of Medicine, Turner 30, 720 Rutland Avenue, Baltimore, Maryland 21205
- 1961 HARVEY, JOHN C., Georgetown University Hospital, 3800 Reservoir Road, N.W., Room 2201, Washington, DC 20007
- 1961 HARVEY, W. PROCTOR, Georgetown University Hospital, 3800 Reservoir Road, N.W., Washington, D.C. 20007

- 1962 HAVILAND, JAMES W., 721 Minor Avenue, Seattle, Washington 98104
- 1948 HINSHAW, H. CORWIN, 450 Sutter Street, Suite 1023, San Francisco, California 94108
- 1963 HOLLING, HERBERT E., Ivy Mills, Box 39E, R.D. 2, Glen Mills, Pennsylvania 19342
- 1957 HORWITZ, ORVILLE, 829 Spruce Street, Suite 407, Philadelphia, Pennsylvania 19107
- 1946 HOWARD, JOHN EAGER, Johns Hopkins Hospital, 600 N. Wolfe Street, Baltimore, Maryland 21205
- 1961 HUNTER, THOMAS H., Box 212, Keswick, Virginia 22947
- 1960 JAMES, G. WATSON, III, Virginia Commonwealth University, Health Sciences Division, Box 113, Richmond, Virginia 23219
- 1966 JANUARY, LEWIS E., Department of Medicine, University Hospitals, Iowa City, Iowa 52242
- 1958 JENKINS, DANIEL E., Baylor College of Medicine, Department of Medicine, 6560 Fannin Street, Suite 1608, Houston, Texas 77030
- 1937 KAMPMEIER, RUDOLPH H., Vanderbilt University Hospital, Station 17, Nashville, Tennessee 37232
- 1954 KAY, CALVIN F., 506 Old Gulph Road, Bryn Mawr, Pennsylvania 19010
- 1969 KIRKENDALL, WALTER M., The University of Texas Medical School, P.O. Box 20708, Room 1282 MSMB, Houston, Texas 77025
- 1957 KNIGHT, VERNON, Baylor College of Medicine, Texas Medical Center, Department of Microbiology, Houston, Texas 77030
- 1960 KNOWLES, HARVEY C., JR., University of Cincinnati Medical Center, Department of Internal Medicine, 231 Bethesda Ave., Cincinnati, Ohio 45267
- 1964 KOHLSTAEDT, KENNETH G., 1430 Paseo De Marcia, Palm Springs, California 92262
- 1960 LAIDLAW, JOHN C., McMaster University Medical Center, Office of the Dean, 1200 Main Street, West, Hamilton, Ontario, Canada
- 1960 LAWRENCE, JOHN H., Donner Laboratory, University of California, Berkeley, California 94720
- 1952 LEWIS, HOWARD P., 122 Grant Tower, 2221 S.W. First Street, Portland, Oregon 97201
- 1959 LIDDLE, GRANT W., Vanderbilt University School of Medicine, Nashville, Tennessee 37203
- 1953 LOGAN, VICTOR W., 44 Planters Row, Hilton Head, South Carolina 29928

- 1954 LOGUE, R. BRUCE, Emory University Clinic, 25 Prescott Street, N.E., Atlanta, Georgia 30308
- 1952 LYONS, RICHARD H., 1540 Fourth Street, South Naples, Florida 33940
- 1956 MACMURRAY, FRANK G., 3301 New Mexico Avenue, N.W., Washington, D.C. 20016
- 1972 MARSTON, ROBERT Q., University of Florida, 226 Tigert Hall, Gainesville, Florida 32611
- 1960 MARTIN, SAMUEL P., R. W. J. Clinical Scholars, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania 19104
- 1955 MASON, ROBERT E., 9 East Chase Street, Baltimore, Maryland 21202
- 1957 MATTINGLY, THOMAS W., Middleborough Apartment 5L, 1825 St. Julian Place, Columbia, South Carolina 29204
- 1952 MEADE, GORDON M., The University of Rochester, School of Medicine and Dentistry, 601 Elmwood Avenue, Rochester, New York 14642
- 1955 MERRILL, ARTHUR J., 35 Collier Road, N.W., Suite 270, Atlanta, Georgia 30309
- 1953 MICHAEL, MAX, JR., 580 West 8th Street, Jacksonville, Florida 32209
- 1946 MILLER, C. PHILLIP, University of Chicago, Department of Medicine, 5757 Kimbark Avenue, Chicago, Illinois 60637
- 1956 MILLER, R. BRETNEY, Route 2, Box 164, Lovettsville, Virginia 22080
- 1952 MITCHELL, ROGER S., 245 Kearney Street, Denver, Colorado 80220
- 1952 MONTGOMERY, HUGH, 932 Merion Square Road, Gladwyne, Pennsylvania 19035
- 1934 MONTGOMERY, LORNE C., 33 Argyle Avenue, St. Lambert, Quebec, Canada J4P 3P5
- 1956 MYERS, GORDON S., 17 Sutton Road, Needham, Massachusetts 02192
- 1951 NICHOLS, EDWARD, 85 Jefferson Street, Hartford, Connecticut 06106
- 1950 ORGAIN, EDWARD S., Duke University Medical Center, Box 3085, Durham, North Carolina 27710
- 1952 PADDOCK, FRANKLIN K., Berkshire Medical Group, 369 South Street, Pittsfield, Massachusetts 01201
- 1953 PALMER, WALTER L., 1320 East 58th Street, Chicago, Illinois 60637

- 1959 PARSON, WILLIAM, Health and Medical Sciences Program, University of California, Berkeley, Room 106 T-7, Berkeley, California 94720
- 1971 PAUL, OGLESBY, Harvard Medical School, Countway Library of Medicine, 10 Shattuck Street, Boston, Massachusetts 02115
- 1961 PELLEGRINO, E. D., Kennedy Institute of Ethics, Georgetown U., Washington, D.C. 20057
- 1946 PORTER, RENO R., Medical College of Virginia, Richmond, Virginia 23298
- 1941 PRATT, HENRY N., New York Hospital, 525 East 68th Street, New York, New York 10021
- 1970 PROUT CURTIS, 319 Longwood Avenue, Boston, Massachusetts 02115
- 1966 RALEIGH, JAMES W., 1801 Allen Parkway, Houston, Texas 77019
- 1982 ROGERS, DAVID E., Robert Wood Johnson Foundation, Box 2316, Princeton, New Jersey 08540
- 1936 ROSE, EDWARD, Kendal #1, Kennett Square, Pennsylvania 19348
- 1969 ROSENOW, EDWARD C., JR., 1901 Walnut Street, Philadelphia, Pennsylvania 19103
- 1950 RUCKS, WILLIAM W., JR., Oklahoma City Clinic, 701 N.E. 10th Street, Oklahoma City, Oklahoma 73014
- 1973 SALASSA, ROBERT M., Mayo Clinic, 200 First Street S.W., Rochester, Minnesota 55901
- 1971 SANDERS, CHARLES A., Squibb & Sons, P.O. Box 4000, Princeton, New Jersey 08540
- 1959 SCHNABEL, TRUMAN G., Hospital of the University of Pennsylvania, 3400 Spruce Street, Box 552, Philadelphia, Pennsylvania 19104
- 1964 SCHOTTSTAEDT, WILLIAM W., University of Texas Medical Branch, Galveston, Texas 77550
- 1979 SCHWARTZ, THEODORE B., Veterans Administration Medical Center, 5th and Fort Streets, Boise, Idaho 83702
- 1952 SCOTT, THORNTON, 1386 Lakewood Drive, Lexington, Kentucky 40502
- 1951 SHULL, HARRISON J., 514 Medical Arts Building, Nashville, Tennessee 37212
- 1964 SINGEWALD, MARTIN L., 11 East Chase Street, Baltimore, Maryland 21202
- 1952 SMITH, CARTER, 35 Collier Road, Suite 775, Atlanta, Georgia 30309
- 1932 SMITH, DAVID T., 512 Watts Street, Apartment 3, Durham, North Carolina 27701

- 1966 SOUTHWORTH, HAMILTON, 109 East 67th Street, New York, New York 10021
- 1946 SPINK, WESLEY W., University of Minnesota Medical School, Box 492, Health Sciences, Minneapolis, Minnesota 55455
- 1972 STANBURY, JOHN B., Massachusetts Institute of Technology, Room 20A-216, Cambridge, Massachusetts 02139
- 1949 STRANG, JAMES M., 1331 Haberton Street, Pittsburgh, Pennsylvania 15206
- 1956 TALBOT, TIMOTHY R., JR., Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, Pennsylvania 19111
- 1946 TERHUNE, WILLIAM B., 3900 Ocean Drive, Fort Lauderdale, Florida 33308
- 1963 THOMAS, WILLIAM C., JR., Research Service, Veterans Administration Medical Center, Gainesville, Florida 32602
- 1962 THOMPSON, W. TALIAFERRO, JR., 4602 Sulgrave Road, Richmond, Virginia 23221
- 1941 THORN, GEORGE W., Howard Hughes Medical Institute, 398 Brookline Avenue, Boston, Massachusetts 02215
- 1958 TILGHMAN, R. CARMICHAEL, "Four Winds", 308 North Wind Road, Baltimore, Maryland 21204
- 1970 TOMPSETT, RALPH, 3500 Gaston Avenue, Dallas, Texas 75246
- 1946 TOONE, ELAM C., JR., McGuire Veterans Hospital, Department of Medicine, Richmond, Virginia 23249
- 1949 TUCKER, H. ST. GEORGE, JR., Medical College of Virginia, Box 111, Richmond, Virginia 23298
- 1951 TUMULTY, PHILIP A., The Johns Hopkins Hospital, 600 North Wolfe Street, Baltimore, Maryland 21205
- 1966 TYLER, FRANK, H., University of Utah Medical Center, Department of Medicine, 50 North Medical Drive, Salt Lake City, Utah 84132
- 1955 VANDERVEER, JOSEPH B., 105 Bryn Mawr Medical Building, County Line Road, Bryn Mawr, Pennsylvania 19010
- 1959 VAN ITALLIE, THEODORE B., St. Luke's-Roosevelt Hospital Center, Amsterdam Avenue at 114th Street, New York, New York 10025
- 1957 VILTER, RICHARD W., University of Cincinnati Medical Center, 231 Bethesda, Cincinnati, Ohio 45267
- 1956 WAGLEY, PHILIP F., 9 East Chase Street, Baltimore, Maryland 21202
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Appendix H

MEETINGS

1.	1884	Washington, D.C.	May 3	55.	1938	Atlantic City	May 2
2.	1885	New York	May 27	56.	1939	Saranac Lake, N. Y.	Oct. 9
3.	1886	New York	May 10	57.	1940	White Sulphur Springs,	
4.	1887	Baltimore	May 31			W. Va.	Oct. 28
5.	1888	Washington, D.C.	Sept. 18	58.	1941	Skytop, Pa.	Oct. 16
6.	1889	Boston	June 25	59.	1946	Hershey, Pa.	Oct. 21
7.	1890	Denver	Sept. 2	60.	1947	Colorado Springs, Co.	Oct. 13
8.	1891	Washington, D. C.	Sept. 22	61.	1948	Hot Springs, Va.	Nov. 8
9.	1892	Richfield Springs,		62.	1949	White Sulphur Springs,	
		N.Y.	June 23			W. Va.	Oct. 27
10.	1893	Philadelphia	May 25	63.	1950	Stockbridge, Mass.	Oct. 16
11.	1894	Washington, D. C.	May 29	64.	1951	Skytop, Pa.	Nov. 5
12.	1895	Hot Springs, Va.	June 13	65.	1952	Elmira, N. Y.	Oct. 16
13.	1896	Lakewood, N. J.	May 12	66.	1953	Hot Springs, Va.	Nov. 2
14.	1897	Washington, D. C.	May 4	67.	1954	Lake Placid, N. Y.	Oct. 14
15.	1898	Bethlehem, N. H.	Aug. 31	68.	1955	Hot Springs, Va.	Oct. 31
16.	1899	New York	May 9	69.	1956	Skytop, Pa.	Nov. 1
17.	1900	Washington, D. C.	May 1	70.	1957	Hot Springs, Va.	Oct. 28
18.	1901	Niagara Falls	May 30	71.	1958	Cooperstown, N. Y.	Oct. 9
19.	1902	Los Angeles	June 9	72.	1959	Hot Springs, Va.	Nov. 2
20.	1903	Washington, D. C.	May 12	73.	1960	Cooperstown, N. Y.	Oct. 6
21.	1904	Philadelphia	June 2	74.	1961	Williamsburg, Va.	Nov. 2
22.	1905	Detroit	June 28	75.	1962	French Lick, Ind.	Oct. 25
23.	1906	Atlantic City	May 12	76.	1963	Hot Springs, Va.	Nov. 4
24.	1907	Washington, D. C.	May 7	77.	1964	Colorado Springs,	
25.	1908	Boston	June 9			Colo.	Oct. 19
26.	1909	Fortress Monroe, Va.	June 4	78.	1965	Williamsburg, Va.	Oct. 25
27.	1910	Washington, D. C.	May 3	79.	1966	Ponte Vedra Beach,	
28.	1911	Montreal	June 15			Fla.	Oct. 31
29.	1912	Hartford, Conn.	June 10	80.	1967	Hot Springs, Va.	Oct. 26
30.	1913	Washington, D.C.	May 6	81.	1968	Fontana, Wisc.	Oct. 14
31.	1914	Atlantic City	June 19	82.	1969	Hilton Head Island,	
32.	1915	San Francisco	June 18			S.C.	Oct. 20
33.	1916	Washington, D. C.	May 9	83.	1970	Ponte Vedra Beach,	
34.	1917	Lakewood, N. J.	May 29			Fla.	Oct. 26
35.	1918	Boston	June 5	84.	1971	Hot Springs, Va.	Oct. 25
36.	1919	Atlantic City	June 14	85.	1972	Ponte Vedra Beach,	
37.	1920	Philadelphia	June 17			Fla.	Oct. 30
38.	1921	Lenox, Mass.	June 3	86.	1973	Colorado Springs,	
39.	1922	Washington, D. C.	May 2			Colo.	Oct. 22
40.	1923	Niagara Falls	May 23	87.	1974	Williamsburg, Va.	Oct. 21
41.	1924	Atlantic City	May 1	88.	1975	Tucker's Town,	
42.	1925	Washington, D. C.	May 5			Bermuda	Oct. 27
43.	1926	Philadelphia	Sept. 27	89.	1976	Ponte Vedra Beach,	
44.	1927	White Sulphur Springs,				Fla.	Oct. 25
		W. Va.	May 19	90.	1977	Colorado Springs,	
45.	1928	Washington, D. C.	May 1			Colo.	Oct. 24
46.	1929	Old Point Comfort,		91.	1978	Pinehurst, N. C.	Oct. 23
		Va.	May 2	92.	1979	Tucker's Town,	
47.	1930	Quebec	May 20			Bermuda	Oct. 22
48.	1931	Hot Springs, Va.	May 7	93.	1980	Williamsburg, Va.	Nov. 2
49.	1932	Absecon, N. J.	May 5	94.	1981	Ponte Vedra Beach,	
50.	1933	Washington, D. C.	May 8			Fla.	Oct. 18
51.	1934	Toronto, Ont.	May 21	95.	1982	Phoenix, Ariz.	Oct. 24
52.	1935	Princeton, N. J.	Oct. 21	96.	1983	Southampton Princess,	
53.	1936	Richmond, Va.	Oct. 26			Bermuda	Oct. 23
54.	1937	Baltimore	Oct. 11	97.	1984	Hot Springs, Va.	Oct. 21

REFERENCES

CHAPTER 1

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6. Flexner S, Flexner J. *William Henry Welch and the Heroic Age of American Medicine*. New York: Viking Press; 1941: 119.
7. Rogers, p. 3.
8. Weber was an honorary member of the American Climatological Association (Jacobi A: An appreciation of Sir Hermann Weber. *Trans Am Climatol Clin Assoc* 1919; **35**: xx).
9. Weber H: On the influence of alpine climates on pulmonary consumption. *Br Med J* 1867; **2**: 41-42, 58-59, 148-149.
10. *Ibid*. On the treatment of phthisis by prolonged residence in elevated regions. *Med-Chir Trans* 1869; **52**: 225-264.
11. Smith A: Practical observations on the diseases of Peru, described as they occur on the coast and in the Sierra. *Edinburgh Med Surg J* 1840; **53**: 298-340, **54**: 1-19, 349-381. 1941; **56**: 152-182, 390-401. 1842; **57**: 356-369, **58**: 59-71.
12. Lombard HC. *Traité de climatologie médicale*. Paris; 1877-1880.
13. The summary of Jouordanet's work is in his *Influence de la Pression de l'Air sur la Vie d'Homme; Climats d'Altitude et Climats de Montagne*. Paris, 1975. Chapter on phthisis in vol. 2, pp. 44-59.
14. Rogers, p. 6.
15. Weber H: The hygienic and climatic treatment of chronic pulmonary tuberculosis phthisis: Lecture III. *Br Med J* 1885; **1**: 688-690, 725-727.
16. *Trans Colorado Territorial Med Soc 1874-1875*. Massey's paper, pp. 48-51; Minutes, p. 24.
17. Rogers, p. 7.
18. Rogers, p. 8.
19. *Trans Intern Med Cong*, Philadelphia, 1876, pp. 387-420; Discussion, pp. 420-423.
20. *Rocky Mountain Health Resorts, An Analytical Study of High Altitudes in Relation to the Arrest of Chronic Pulmonary Disease*. Boston; 1880.
21. *Pocket Atlas of Denison's Annual and Seasonal Climatic Maps of the United States*. Chicago: Rand McNally; 1885.
22. Rogers, p. 10.

CHAPTER 2

1. Mitchell RS, Hannemann J: The first annual meeting of the American Climatological Association. *Trans Am Clin Climatol Assoc* 1970; **82**: 9.
2. Editorial. *JAMA* 1884; **2**: 523.
3. Otis EO: Frederick Irving Knight. *Boston Med Surg J* Feb. 25, 1909; **160** (8): 257.
4. Mitchell and Hannemann, p. 10.
5. Mitchell and Hannemann, p. 11.

6. Mitchell and Hannemann, p. 15.
7. Mitchell and Hannemann, p. 18.
8. Kelly HA, Burrage WL. Alexander Yelverton Peyton Garnett. In: *Dictionary of American Biography*. New York: Appleton; 1928: 454.
9. Mitchell and Hannemann, p. 19.
10. Kelly and Burrage, p. 318.
11. Kelly and Burrage, p. 332.
12. Mitchell and Hannemann, p. 24.
13. Kelly and Burrage, p. 758.
14. Kelly and Burrage, p. 1044.
15. Kelly and Burrage, p. 614.
16. Mitchell and Hannemann, p. 29.
17. Mitchell and Hannemann, p. 31.
18. Kelly and Burrage, p. 629.
19. Kelly and Burrage, p. 417.

CHAPTER 3

1. Kelly and Burrage, p. 127.
2. Walkling AA: Henry Ingersoll Bowditch. *Am Med Hist* (new series) 1933; **5**: 428.
3. Kelly and Burrage, p. 655.
4. Denison C: Annual and seasonal maps of the United States; With a rule for even division of climate, based upon the averages of the combined atmospheric humidities in the United States. *Trans Am Climatol Assoc* 1885; **2**: 78–86; Discussion, pp. 87–91.
5. Kelly and Burrage, p. 959.
6. Osler's name does not appear in subsequent volumes of the *Transactions* and the only evidence of his attendance at a subsequent meeting was the statement by E. L. Trudeau that he met Osler and Welch when he (Trudeau) gave his first paper before the Climatological at the Fourth Annual Meeting, held in Baltimore in 1887.

Osler was a key figure in the organization of the Association of American Physicians in 1885. This society had a broad interest in internal medicine and its first meeting was characterized by Osler as the "coming of age of internal medicine."

There were other members of the Climatological who were also members of the Association of American Physicians in the early years of its life, including A. C. Abbott, Frank Billings, E. T. Bruen, Norman Bridge, I. N. Danforth, Frank Donaldson, Samuel A. Fisk, George M. Garland, Hobart A. Hare, Abraham Jacobi, W. W. Johnson, Alfred Loomis, John Musser, William Pepper, Beverley Robinson, A. A. Smith, E. L. Trudeau, Samuel B. Ward and James C. Wilson.

These dual memberships attest to the broad exposure of many ACA members to the medical science of the late 1880s.

7. Pneumatic differentiation was the process by which the air surrounding the body and that entering the lungs was rendered of different pressures. It was considered under three forms, designated as positive, negative, and alternate differentiation. In positive differentiation, the air entering the lungs was maintained during both respiratory phases at greater pressure than that surrounding the body. Negative differentiation was the reverse of this, the air surrounding the body being maintained during both phases of respiration at a greater pressure than that entering the lungs. Alternate differentiation was the process by which the two other forms were alternated during the breathing act—in inspiration, the air entering the lungs being of greater pressure, and during expiration that surrounding the body being greater. It was thought that by means of these variations one could control the amount of blood in the lungs and consequently control pulmonary congestion and hemorrhage, and raise or lower arterial pressure.

8. On June 7, 1957, at the Sesquicentennial ceremonies held at the University of Maryland School of Medicine, a plaque was presented by the Maryland Society of Pathologists in honor of Francis Donaldson (1823–1891). The plaque to Donaldson reads as follows: “Francis Donaldson, M.D., University of Maryland, Class of 1846, Professor of Pathology 1866–80. In 1833 Francis Donaldson introduced the microscope to America as an essential instrument in the diagnosis of malignancy. He was the first American to advance the use of excision, aspiration and exfoliative biopsy technique.”

The microscope had come into being and by 1840 a man named Spencer was manufacturing microscopes in this country. Francis Donaldson graduated from the University of Maryland Medical School in 1846. Hearing of the rapid developments taking place in Europe, he enrolled as a student at the Cherry Hospital in Paris. One of the men he studied under there was Alexander Donne, one of the foremost Parisian pathologists who was beginning to use the microscope for diagnosis, and who first described blood platelets in 1842. His greatest challenge came from the researches of Müller, whom he gave full credit for the first microscopic investigation of morbid growths.

Two years later, Donaldson returned to Baltimore and in 1853 wrote a paper on the use of microscopes for the diagnosis of cancerous growths. In this he said: “We mean to express our conviction that there can be no just and satisfactory classification of morbid growths not founded upon their intimate microscopic structures.” His thesis was divided into three parts, beginning with a description of the microscope with which practically no one in this country was familiar at that time. He then proceeded to outline three techniques for the preparation and examination of malignant tissue. He concluded with an explanation of proper steps to be taken in a diagnosis of cancer based on his own studies. This was the first use, it is believed, of the biopsy technique—that is, the removal and examination of living tissue. Donaldson’s work antedated by three years that of Rudolph Virchow.

Donaldson practiced in an office on Park Avenue in Baltimore and entered the faculty of the University of Maryland School of Medicine the year this paper was published. He became a professor of pathology in the school in 1866 and continued to teach there until 1880. Little is known about his career after 1853. His method remained unused for nearly 50 years, and apparently he gave up trying to promote it. He died in 1891.

Donaldson’s discovery itself was forgotten for the next 85 years. The first glimmer of the story appeared on the pages of the *Proceedings of the Staff Meetings of the Mayo Clinic* (October 1948); a citation was given in an article by W. A. Heinrich and Edward S. Judd, Jr. Dr. John A. Wagner saw the citation and located the Donaldson thesis in the library of the University of Maryland School of Medicine. After nearly ten years of study, Dr. John A. Wagner, professor of neuropathology at the University of Maryland Medical School, produced evidence that Donaldson was the first to use the biopsy technique (*The Evening Sun*, Baltimore, June 13, 1957). Donaldson’s article, entitled “The Practical Application of the Microscope to the Diagnosis of Cancer,” was published in the *American Journal of Medical Sciences*, Number xlix, Volume xxv, page 43 (January 1853). The Mayo Clinic physicians stated that “Donaldson, who had studied in Paris, returned to Baltimore and was the first person in this country to take pieces of tissue from an ulcerated surface lesion and with the aid of a microscope make a diagnosis of cancer.” (Personal communication from Dr. Lewis B. Flinn, whose wife Elizabeth is the granddaughter of Francis Donaldson, Sr.)

9. Trudeau, EL. *An Autobiography*. Garden City, New York: Doubleday, Page and Co.; 1916; 206.
10. Thomas HM: Dr. Trudeau, the man. In: Memorial Meeting to Dr. E. L. Trudeau. *Johns Hopkins Hosp Bull* 1916; **27** (302): 18–32.
11. V. Y. Bowditch. *Trans Am Climatol Clin Assoc* 1930; **46**: xli.

12. This was the last paper H. I. Bowditch ever read before a medical audience. It was the story of the practical experience of his father who, when about 35 years of age, having had hemoptysis and other signs of tuberculosis, adopted this method of regaining his health. His father succeeded in arresting the disease by a long journey of several weeks through the eastern states by horse and buggy. In 1890, H. I. Bowditch began to show the effects of the malady that was to cause his death. In 1880 he had discovered that he was suffering from the same disease his father had. The knowledge affected him but slightly as far as work was concerned. His life style was changed only by prolonged vacation in the summer, when he lived in the country for several months.
That this industry was remarkable is evidenced by the volume of his published papers. This trait certainly was taught by his father who once, seeing some idlers lounging about in Salem, said: "I wish I could have the time of those men." (Walkling, A. A.: Henry Ingersoll Bowditch. *Am. Med. Hist. (new series)* 5: 428, 1933.)
13. Hinsdale G: Willis E. Ford. *Trans Am Climatol Clin Assoc* 1931; **47**: liv.
14. Anders JM: Roland Gideon Curtin: An appreciation. *Trans Am Climatol Assoc* 1913; **29**: xxiii.

CHAPTER 4

1. Kelly and Burrage, p. 1123.
2. Kelly and Burrage, p. 1141.
3. Solly SE. *Maniton, Colorado, U.S.A.; Its Mineral Waters and Climate*. St. Louis; 1875.
4. Solly SE. *A Handbook of Medical Climatology; Embodying its Principles and Therapeutic Application with Scientific Data of the Chief Health Resorts of the World*. Philadelphia; 1897.
5. Solly SE: Sanatorium treatment of tuberculosis in Colorado. *Trans Am Climatol Assoc* 1902; **18**: 182-185.
6. Kelly and Burrage, p. 630.
7. Hawes JB II: Edward Osgood Otis. *Trans Am Clin Climatol Assoc* 1934; **50**: liii.
8. Kelly and Burrage, p. 959.
9. Kelly and Burrage, p. 1044.
10. Delivered before the London Pathological Society, April 6, 1875.
11. Virchow R: Recent advances in science. *Lancet* October 8, 1899; p. 911.
12. Kelly and Burrage, p. 642.
13. Hinsdale G: Abraham Jacobi. *Trans Am Climatol Clin Assoc* 1919; **35**: xxviii.
14. Hinsdale G: Robert Hall Babcock. *Trans Am Climatol Clin Assoc* 1931; **47**: xl.
15. Kelly and Burrage, p. 1169.
16. Edson CE: Samuel Augustus Fisk, A.M., M.D. *Trans Am Climatol Clin Assoc* 1915; **31**: xxi.
17. Kelly and Burrage, p. 144.

CHAPTER 5

1. Piersol GM: James Cornelius Wilson. *Trans Am Clin Climatol Assoc* 1935; **51**: xlvi.
2. Rackemann FM: William Fowke Ravenel Phillips. *Trans Am Clin Climatol Assoc* 1935; **51**: 1.
3. Kelly and Burrage, p. 1110.
4. Ernest Lorenzo Shurly. *Trans Am Climatol Assoc* 1913; **29**: xxvii.
5. Rackemann FM: Thomas Darlington. *Trans Am Clin Climatol Assoc* 1946; **58**: lvii.
6. Denison C: Discussion. *Trans Am Climatol Assoc* 1907; **23**: 51.
7. Hinsdale G: Thomas D. Coleman. *Trans Am Climatol Clin Assoc* 1928; **44**: xxviii.
8. Nammack CE: Henry Patterson Loomis, M.D. *Trans Am Climatol Assoc* 1908; **24**: xxi.

9. Hinsdale G: Charles E. Quimby (1853–1921). *Trans Am Climatol Clin Assoc* 1922; **38**: xx.
10. A portrait and a memorial note appear in this volume. Also see Otis EO: Frederick Irving Knight. *Boston Med Surg J* Feb 25, 1909; **160** (8): 257.
11. Dr. Barnes's letter is in the ACCA file at The National Library of Medicine, Bethesda, MD.
12. Price JW: Edward R. Baldwin, M.D. *Trans Am Clin Climatol Assoc* 1947; **59**: xlviii.
13. Miller JA: John Winters Brannan. *Trans Am Clin Climatol Assoc* 1936; **52**: xliii.
14. Alexander Dougall Blackader. *Trans Am Climatol Clin Assoc* 1932; **48**: xlv.
15. Wilson JL: John H. Musser, M.D. *Trans Am Clin Climatol Assoc* 1947; **59**: lxi.
16. Richard A. Cleemann. *Trans Am Climatol Assoc* 1912; **28**: xxix.

CHAPTER 6

1. Ringer PH: Charles L. Minor (May 10, 1865–December 26, 1928). *Trans Am Climatol Clin Assoc* 1929; **45**: xl.
2. A committee was appointed by the president to consider the recommendations that he had made in his Presidential Address. At the meeting of the Council in 1914, three resolutions were presented by this committee. The first resolution, recommending a change in name, was thoroughly discussed and then adopted. The change involved Article I which would, in the future, read: "This society shall be known as the American Climatological and Clinical Association." It was then moved and seconded that the Association adopt the second resolution, viz.: "That Article II be changed so as to read: "The object of this Association shall be the clinical study of diseases especially those of the respiratory and circulatory organs, and of climatology and hydrology.'" On Dr. Minor's suggestion, the Association considered the resolution amended as follows: "That Article II be changed so as to read: "The object of this Association shall be the clinical study of disease especially of the respiratory and circulatory organs, and of climatology and hydrology.'" This amendment was seconded and carried, and it was then moved and seconded that the motion as amended be adopted. This was also carried.
3. Piersol GM: James M. Anders, M.D. *Trans Am Clin Climatol Assoc* 1936; **52**: xxxviii.
4. Webb G: Henry Sewall, M.D. *Trans Am Clin Climatol Assoc* 1936; **52**: xlviii.
5. *Trans Am Climatol Clin Assoc* 1915; **31**: xix.

A Visit to Arequipa Sanatorium

"... On June 20 ... the Association, together with a number of interesting laymen, became the guests of our Philip King Brown in a luncheon at the Arequipa Sanatorium, after which we enjoyed that marvelous picture show seen in a ride to the top of Mount Tamalpais. Ferry across the bay of San Francisco, a ride by rail through a country of flowers and a suggestion of subtropical vegetation, with the finishing half-mile by automobile brought us in less than two hours to the Sanatorium.

"The place has a rugged sylvan charm. The buildings perch upon a steep hillside and look out towards the east over a vast amphitheatre of green wood and brush. Their rough board structure harmonizes with the environment and strengthens the illusion that here is a camp where one comes to drop care and pick up health. The sleeping quarters are great halls opening broadly on verandahs.

"The policy of the institution makes it somewhat unique among its kind. Admission to its care is limited to the working girls of San Francisco, forty thousand strong, among whom the death-rate from consumption is twice as high as among the men.

"It is sought to cull from the applicants those in the early stages of the disease and to maintain them at a cost of a dollar a day. An important part of the design is to offer to the patients some work which may be carried on without injury to health and prove

of sufficient commercial value to bring them financial returns. For patients confined to bed the charge is one dollar and a half per day

"The making of high-grade art pottery has been chosen as the elective occupation of the institution. The product of the pottery is practically the work of the patients, except the digging and the screening of the clay, the glazing and preparing the kiln for firing. No patient is allowed in the pottery who coughs or has a temperature above normal. To those patients who choose the work some simple task is given at the outset, lasting not more than an hour a day, and none work more than five hours a day, five days in the week. Although the pottery establishment has not, as a whole, thus far paid for itself, and is still in an experimental stage, the outlook is encouraging. Some of the patients have been paid has much as fifteen dollars a week for their work. No harm has been traced to the occupation.

"We visitors were impressed with the happy, blooming faces of the girls under treatment, and we could not but reflect on the greatness of accomplishment and how it might be magnified did more of us possess the initiative and devotion of Philip King Brown."

6. Kelly and Burrage, p. 417.
7. Amberson JB: James Alexander Miller, M.D. *Trans Am Clin Climatol Assoc* 1948; **60**: liii.
8. Landis HRM: The role played by the study of tuberculosis in the development of clinical medicine. *Trans Am Climatol Clin Assoc* 1916; **32**: 60 (see also pp. 64-66).
9. Wolferth CC: Judson Daland (1860-1937). *Trans Am Clin Climatol Assoc* 1937; **53**: xlii.
10. Parfitt CD: Jabez Henry Elliott, M.D., 1893-1942. *Trans Am Clin Climatol Assoc* 1946; **58**: lx.
11. Baker JP: Guy Hinsdale, M.D. *Trans Am Clin Climatol Assoc* 1948; **60**: li.
12. Price JW: Lawrason Brown, M.D. *Trans Am Clin Climatol Assoc* 1938; **54**: xiii.
13. Carroll Everett Edson, A.M., M.D. *Trans Am Climatol Clin Assoc* 1930; **46**: xliii.
14. Kelly and Burrage, p. 481.
15. Beardsley, JG: William Duffield Robinson (1856-1931). *Trans Am Climatol Clin Assoc* 1931; **47**: xlii.
16. Ruffin S: Charles Williamson Richardson. *Trans Am Climatol Clin Assoc* 1930; **46**: xxxv.
17. Hinsdale G: Robert Hall Babcock. *Trans Am Climatol Clin Assoc* 1931; **47**: xl.
18. Lyman DR: Gordon Wilson. *Trans Am Clin Climatol Assoc* 1933; **49**: xlvi.
19. Miller TG: George William Norris, M.D. *Trans Am Clin Climatol Assoc* 1966; **78**: lxiii.
20. Morriss WH: David Russell Lyman, M.D. *Trans Am Clin Climatol Assoc* 1956; **68**: xlii.
21. Howard JE: Walter Albert Baetjer, M.D. *Trans Am Clin Climatol Assoc* 1972; **84**: xxix.
22. Rackemann FM: Joseph Hersey Pratt, M.D. *Trans Am Clin Climatol Assoc* 1956; **68**: xlviii.
23. Proger S: Dr. Joseph Hersey Pratt. *N Engl J Med* 1956; **254**: 920.
24. Harvey A McG. *The Interurban Clinical Club (1905-1976): A Record of Achievement in Clinical Science*. Philadelphia. W.B. Saunders; 1978: 20.
25. Adams RD: Dr. William LeRoy Dunn. *Trans Am Climatol Clin Assoc* 1929; **45**: xxxviii.
26. Gilbert GB: Gerald Bertram Webb, M.D. *Trans Am Clin Climatol Assoc* 1948; **60**: lvi.
27. Ruffin S: Charles Williamson Richardson. *Trans Am Climatol Clin Assoc* 1930; **46**: xxxv.
28. Miller TG: George Morris Piersol, M.D. *Trans Am Clin Climatol Assoc* 1966; **78**: lxvii.

CHAPTER 7

1. The Parfitt-Rackemann correspondence is in the ACCA file at The National Library of Medicine, Bethesda, MD.

2. Ringer, PH: Charles L. Minor. *Trans Am Climatol Clin Assoc* 1929; **45**: xl.
3. Wainwright CW: Louis Hamman, M.D. *Trans Am Clin Climatol Assoc* 1946; **58**: lxiv.
4. Rackemann FM: George Richards Minot, M.D. *Trans Am Clin Climatol Assoc* 1950; **62**: xlix.
5. The Hamman-Rackemann correspondence is in the ACCA file at The National Library of Medicine, Bethesda, MD.
6. Miller TG: Presidential Address. *Trans Am Clin Climatol Assoc* 1947; **59**: lxiv.

CHAPTER 8

1. Pratt JH: Charles Daniel Parfitt, M.D. *Trans Am Clin Climatol Assoc* 1952; **64**: lvi.
2. Pratt JH: Walter Ralph Steiner, M.D., 1870–1942. *Trans Am Clin Climatol Assoc* 1946; **58**: lxxviii.
3. Wright IS: L. Whittington Gorham, M.D. *Trans Am Clin Climatol Assoc* 1968; **80**: xlvii.
4. Piersol GM: James M. Anders, M.D. *Trans Am Clin Climatol Assoc* 1936; **52**: xxxviii.
5. Webb G: Henry Sewall, M.D. *Trans Am Clin Climatol Assoc* 1936; **52**: xlvi.
6. Burwell CS: James Edgar Paullin, M.D. *Trans Am Clin Climatol Assoc* 1951; **63**: lxiv.
7. For the history related to the Gordon Wilson Lectureship see Appendix B.
8. Senator J. Hamilton Lewis of Illinois had introduced a resolution in the United States Senate that all physicians should become civil employees of the government and therefore subject to various regulations and restrictions in the practice of their art. The Illinois State Medical Society had protested this resolution vigorously and requested that the Climatological, the first national society to hold a meeting after the resolution was made, also protest. It was voted “that the matter be submitted to a committee composed of George C. Shattuck, Alphonse R. Dochez, and Francis M. Rackemann, with power to draw up a vigorous protest for the Climatological and submit it to the proper authorities in Congress.”
9. Kneeland Y: Alphonse Raymond Dochez. *Trans Am Clin Climatol Assoc* 1967; **79**: lii.
10. Price JW: Lawrason Brown, M.D. *Trans Am Clin Climatol Assoc* 1938; **54**: xiii.
11. Montgomery LC: Alvah Hovey Gordon, M.D. *Trans Am Clin Climatol Assoc* 1954; **66**: lvii.
12. Tucker H St George: William Branch Porter, M.D. *Trans Am Clin Climatol Assoc* 1960; **72**: li.
13. Rackemann FM: Sir Wilfred Thomason Grenfell, M.D. *Trans Am Clin Climatol Assoc* 1940; **56**: xlvii.
14. Holmes JH: James Johnston Waring, M.D. *Trans Am Clin Climatol Assoc* 1963; **75**: lvi.
15. Paul Nathaniel Anderson: “James J. Waring, Doctor of Medicine,” an unpublished paper presented to the Waring Society of the University of Colorado, 1963.
16. Eppinger EC: Charles Sidney Burwell, M.D. *Trans Am Clin Climatol Assoc* 1967; **79**: l.
17. Harvey A McG: *The Interurban Clinical Club*, p. 94; Harvey JC: The writings of Louis Hamman. *Bull Johns Hopkins Hosp* 1954; **95**: 178; Wainwright CW: Dr. Hamman as I knew him. *Bull Johns Hopkins Hosp* 1955; **96**: 29.
18. Palmer WW: T. Grier Miller, M.D. *Trans Am Clin Climatol Assoc* 1982; **94**: xlii.
19. Price JW: Edward R. Baldwin. *Trans Am Clin Climatol Assoc* 1947; **59**: xlvi.
20. Amberson JB: James Alexander Miller. *Trans Am Clin Climatol Assoc* 1948; **60**: liii.
21. Gilbert GB: Gerald Bertram Webb. *Trans Am Clin Climatol Assoc* 1948; **60**: lvi.
22. Piersol GM: Maurice C. Pincoffs, M.D. *Trans Am Clin Climatol Assoc* 1961; **73**: lii.
23. Harvey A McG: John Theodore King, Jr., 1889–1979. *Trans Assoc Am Physicians* 1981; **94**: xcvi.
24. Rackemann FM: George Richards Minot. *Trans Am Clin Climatol Assoc* 1950; **62**: xlix.

25. Morgan HJ: John Minor. *Trans Am Clin Climatol Assoc* 1961; **73**: xlv.
26. Sturgis CC: Henry Asbury Christian. *Trans Am Clin Climatol Assoc* 1951; **63**: lv.
27. Burwell CS: James Edgar Paullin. *Trans Am Clin Climatol Assoc* 1951; **63**: lxiv.
28. Kampmeier RH: Edgar Jones. *Trans Am Clin Climatol Assoc* 1951; **63**: lxix.
29. Ellis DS: Chester Morse Jones. *Trans Am Clin Climatol Assoc* 1975; **87**: xxxv.
30. This was William B. Bean's first meeting. He recalls meeting Frank Rackemann and a gathering of members and wives in one of the hotel rooms for songs and libations, and Rackemann leading the chorus but with much strong support. They were approached, not once, but twice, by the hotel management and finally, in a certain amount of turmoil, disbanded. Rackemann's tradition of pounding out music on the piano for such rollicking song fests provides a warm illustration of the Association's camaraderie and his vital part in it.
31. Pratt JH: Charles David Parfitt, M.D. *Trans Am Clin Climatol Assoc* 1952; **64**: lvi.
32. Billings FT Jr: Hugh Jackson Morgan. *Trans Am Clin Climatol Assoc* 1962; **74**: xliii.
33. Wright IS: Robert L. Levy. *Trans Am Clin Climatol Assoc* 1976; **88**: xxxvi.
34. Root HF: Rollin Turner Woodyatt. *Trans Am Clin Climatol Assoc* 1954; **66**: liv.
35. Root HF: James Stevens Simmons. *Trans Am Clin Climatol Assoc* 1954; **66**: li.
36. Herrmann GR: William Richardson Houston. *Trans Am Clin Climatol Assoc* 1954; **66**: lix.
37. Smith C: James S. McLester. *Trans Am Clin Climatol Assoc* 1954; **66**: lxi.
38. King JT Jr: Henry M. Thomas. *Trans Am Clin Climatol Assoc* 1966; **78**: lxx. (Though generally known as Junior, Hal Thomas was given the middle name of Malcolm at his birth. His father had no middle name and used the letter M instead.)
39. Harvey A McG: *The Interurban Clinical Club*, p. 256.
40. King JT Jr: Charles R. Austrian. *Trans Am Clin Climatol Assoc* 1956; **68**: xli.
41. Rackemann FM: Joseph Hersey Pratt. *Trans Am Clin Climatol Assoc* 1956; **68**: xlviii.
42. Pete Abbott (William Osler Abbott) was the great-nephew of Sir William, and he often told us about Sir William's visits. Whenever William Osler came to visit the Abbott family in Philadelphia he would always bring a present: one for Pete and one for Kitty, his sister. One day he arrived having completely forgotten these presents. He sat there, thought a moment, then pulled out a \$10 bill, cut it diagonally from corner to corner and handed each of them one of the halves of the bill.
43. Harvey A McG: *The Interurban Clinical Club*, p. 230.
44. Vilter RW: Johnson McGuire. *Trans Am Clin Climatol Assoc* 1977; **89**: xlviii.
45. Hayes IH: Hugh M. Kinghorn. *Trans Am Clin Climatol Assoc* 1958; **70**: xliii.
46. Harvey A McG. *The Interurban Clinical Club*, p. 248.
47. Thomas HM Jr: Joseph Earle Moore. *Trans Am Clin Climatol Assoc* 1959; **71**: xlix.
48. Tilghman RC: Marshall Nairne Fulton. *Trans Am Clin Climatol Assoc* 1977; **89**: l.
49. "EPILOGUE

In concluding remarks I added as a postscript after presenting this paper at Coopers-town, when the entire company was stunned into silence and there was no discussion, I pointed out that, had I followed the sagacious instructions of my good wife, expunging item after item from my talk ("They know all that.") ultimately I would have wound up with a paper no longer than the fabulous chapter on owls in the revered Bishop Pontoppidan's history of Iceland. The good bishop wrote simply that there are no owls in Iceland. That was the whole chapter. I had no oblique Climatological motive but Gordon Meade was not one to pass over lightly matters about birds any more than Jim Bordley would let pass appropriate allusions to whales. Gordon communicated directly with Finnur Gudmundson, the Curator of Ornithology at the *Natturugripasafnid* [Museum of Natural History 'to you' (i.e. to me) as Gordon Meade so quaintly and clearly said in his letter] at Reykjavik, Iceland and found in fact that no owls were in Iceland at the time Bishop Pontoppidan wrote his history. But now as a sign of progress

of sorts two sets of owls, the short-eared owl and the snowy owl, have moved in since the good Bishop Pontoppidan was in business. I am not one to take such matters lightly, either, and I set my literary beaters and bird watching literary Icelandic colleagues to flush whatever game they could in the way of Icelandic owls. I am proud to relate that the introduction of Vol. XI of ISLANDICA in a footnote is a statement that there is a volume of Icelandic manuscripts in the Maurer Collection, Harvard University Library (No. 26, 20) with an essay by Jón Gudmundsson, possibly an ancestor of Finnar, toward the end of which mention is made that an owl, *Kattugla*, was seen in Skálholt during the episcopate of Jón Vidalin (1697–1720). So it is possible that after all the good Bishop Pontoppidan just might not have had the last word to say on owls in Iceland. Since a project site visit seems out of the question my suggestion is that if the hegira to Bermuda in the fall of 1962 proves a success some of our members might venture on to Iceland scouting for owls and surveying Reykjavik as a place for future meetings of the Climatological Association.” (For a continuation of the discussion of birds and the interests they create for members of the Climatological, see p. 199)

50. MacMurray FG: Worth B. Daniels, 1899–1978. *Trans Am Clin Climatol Assoc* 1978; **90**: xxxiii.
51. Lewis January tells an amusing anecdote about Worth Daniels: “At a business meeting I raised the question of issuing name tags at the time of registration. It was debated negatively but Worth Daniels vigorously supported the proposal. Of course it was voted down. He said to me at intermission: ‘I could have told you you wouldn’t win. I’ve tried off and on for years to get name tags. I long ago gave up and solved it for myself. I just walk over, put out my hand, and say: “My name is Worth Daniels, can you remember yours?”’”
52. Earle DP: S. Howard Armstrong. *Trans Am Clin Climatol Assoc* 1961; **73**: xli.
53. Fulton MN: Frank Taylor Fulton. *Trans Am Clin Climatol Assoc* 1961; **73**: xliii.
54. Morgan HJ: John Minor. *Trans Am Clin Climatol Assoc* 1961; **73**: xlvi.
55. Piersol GM: Maurice Pincoffs. *Trans Am Clin Climatol Assoc* 1961; **73**: li.
56. Billings FT Jr: Hugh Jackson Morgan. *Trans Am Clin Climatol Assoc* 1962; **74**: xliii.
57. Rose E: Oliver Hazard Perry Pepper. *Trans Am Clin Climatol Assoc* 1962; **74**: xlvi.
58. Bosworth HW: Frances Marion Pottenger. *Trans Am Clin Climatol Assoc* 1962; **74**: xlviii.

CHAPTER 9

1. Wainwright CW: Chester Scott Keefer. *Trans Am Clin Climatol Assoc* 1972; **84**: xxxiii.
2. Holmes JH: James Johnston Waring. *Trans Am Clin Climatol Assoc* 1963; **75**: lvi.
3. The Golden Bee Saloon provided the ideal backdrop for another of Francis Rackemann’s song fests. Until the wee hours of the morning, while he played the piano with tireless energy, a hardy group of Climatologicals sang: “The Saints Go Marching In,” “Pack Up Your Troubles,” and many other favorites. Needless to say, “Rack” was in seventh heaven.
4. The historical background of the Metzger Lectureship is given in Appendix C.
5. Wood FC: Francis D. W. Lukens. *Trans Am Clin Climatol Assoc* 1980; **92**: lx.
6. Ebert RV: Presentation of the Kober Medal for 1972 to Cecil J. Watson. *Trans Assoc Am Physicians* 1972; **85**: 51.
7. Blount SG Jr: Charles Nash Meader, M.D. *Trans Am Clin Climatol Assoc* 1966; **78**: lv.
8. Kneeland Y: Alphonse Raymond Dochez, M.D. *Trans Am Clin Climatol Assoc* 1967; **79**: lii.
9. Wright IS: L. Whittington Gorham. *Trans Am Clin Climatol Assoc* 1968; **80**: xlvii.
10. Harvey A McG: *The Interurban Clinical Club*, p. 416.

11. Many members who were present at the 1976 meeting in Ponte Vedra will remember that Thornton Scott set himself up as the unofficial mycologist and as such gathered a basketful of lovely-appearing mushrooms growing wild on the hotel grounds. He and Peggy invited the Beans, Russells, Warthins, and Januarys to share in them over drinks in their room. Within a short time all of us became ill to some degree, but Eloise and I over-sampled the delicious fungus, becoming "deathly ill." I did remember during the night, after Walter Kirkendall somehow had found some atropine, that you could die from mushroom poisoning. Walter and Meg Kirkendall, Emily, and Frank Brooks played physician and nurse to us throughout the night. Eloise required hospitalization to be rehydrated but I bravely restored my water and electrolyte loss with Gatorade. Our hotel room resembled a cholera ward when the maid came to clean it up. She said to me: "You all must be the ones who ate the poisoned mushrooms. That's too bad, because we all know these around here could kill you." By the time I felt like wandering over to the meeting, I noticed that the hotel groundkeepers were out in force destroying every mushroom in sight. (Personal communication from Lewis E. January, October 19, 1982).
12. Harvey A McG: *The Interurban Clinical Club*, p. 299.
13. Stetson RP: Edwin Allen Locke. *Trans Am Clin Climatol Assoc* 1971; **83**: xli.
14. Harvey A McG: Lewis Dexter. In: *The Interurban Clinical Club*, p. 341.
15. Howard JE: Walter Albert Baetjer. *Trans Am Clin Climatol Assoc* 1972; **84**: xxix.
16. Wainwright CW: Chester Scott Keefer. *Trans Am Clin Climatol Assoc* 1972; **84**: xxxiii.
17. Wright GW: James Burns Amberson. *Trans Am Clin Climatol Assoc* 1981; **93**: xxxiii.
18. Hurst JW: Paul Dudley White. *Trans Am Clin Climatol Assoc* 1974; **86**: xlv.
19. White PD: The diagnosis of heart disease with a special reference to its importance in preventive medicine. *Boston Med Surg J* January 12, 1922; **186**(2): 34-38.
20. Harvey A McG: *The Interurban Clinical Club*, p. 331.
21. Burrage WS: Francis Minot Rackemann. *Trans Am Clin Climatol Assoc* 1973; **85**: xl.
22. Hurst JW: Paul Dudley White. *Trans Am Clin Climatol Assoc* 1974; **86**: xlv.
23. Interview with Alden Griffin, *Boston Globe*, September 14, 1974.
24. Harvey A McG: *The Interurban Clinical Club*, p. 482.
25. Ellis DS: Chester Morse Jones. *Trans Am Clin Climatol Assoc* 1975; **87**: xxxv.
26. Badger T: Cleaveland Floyd. *Trans Am Clin Climatol Assoc* 1976; **88**: xxxi.
27. Floyd C, Robinson S: Artificial pneumothorax as a treatment of pulmonary tuberculosis. *Arch Intern Med* 1912; **9**: 452-483.
28. Wright IS: Robert L. Levy. *Trans Am Clin Climatol Assoc* 1976; **88**: xxxvi.
29. Dexter L: Walter A. Griffin. *Trans Am Clin Climatol Assoc* 1977; **89**: xxix.
30. MacMurray FG: Worth B. Daniels. *Trans Am Clin Climatol Assoc* 1978; **90**: xxxiii.
31. Harvey A McG: *The Interurban Clinical Club*, p. 500.
32. Baker BM, Ross RS: E. Cowles Andrus. *Trans Am Clin Climatol Assoc* 1979; **91**: xxix.
33. Wood FC: Francis D. W. Lukens. *Trans Am Clin Climatol Assoc* 1980; **91**: lx.
34. Wright GW: James Burns Amberson. *Trans Am Clin Climatol Assoc* 1981; **93**: xxxiii.

CHAPTER 10

1. See Appendix D for the recollections of various members.

APPENDIX A

1. Curtin RG: James Baynes Walker. *Trans Am Clin Climatol Assoc* 1911; **27**: xxiv.
2. Baker JP: Guy Hinsdale. *Trans Am Clin Climatol Assoc* 1948; **60**: li.
3. Lyman DR: Arthur Kingsbury Stone, M.D. (Dec. 13, 1861-July 31, 1952). *Trans Am Clin Climatol Assoc* 1952; **64**: lx.

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4. Burrage WS: Francis Minot Rackemann. *Trans Am Clin Climatol Assoc* 1973; **85**: xl.
5. Lowell FC: Francis Minot Rackemann, 1887–1973. *Trans Assoc Am Physicians* 1973; **86**: 31.
6. Harvey A McG: James Bordley III. *Trans Am Clin Climatol Assoc* 1980; **92**: xlix.
7. Tilghman RC: Marshall Nairne Fulton. *Trans Am Clin Climatol Assoc* 1977; **89**: 1.
8. Personal communication from Frederic Tremaine Billings, Jr.
9. Harvey A McG: *The Interurban Clinical Club*, p. 520.
10. Harvey A McG: *The Interurban Clinical Club*, p. 526.

APPENDIX B

1. Lyman DR: Gordon Wilson. *Trans Am Clin Climatol Assoc* 1933; **49**: xlvi.

APPENDIX C

1. Waring JJ: Jeremiah Metzger, M.D. *Trans Am Clin Climatol Assoc* 1959; **71**: xlviii.

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