

THE 1940 CLINICAL CONGRESS

THE COLLEGE AND AMERICAN SURGERY

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A PRESIDENTIAL address in my opinion should give an account of the affairs of the organization, an accounting for stewardship as it were. The American College of Surgeons is fortunate in having a splendid organization with minute and detailed reports available, and hence its president has but little to do. Therefore, it seems to me that this address might serve to welcome the initiates who shortly will become Fellows of the College and also to discuss certain details of the College, its aims, and objectives.

Most of the successful ventures in human endeavor come from organization and we think this is particularly true of medicine. The labor union exists for the purpose of improving the economic status of its members; the medical association or college exists to improve the scientific attainments of its members by organized effort.

The foundation of the American College of Surgeons sprang from an idea. In 1903, the Society of Clinical Surgery was organized for the purpose of demonstrating to a group of surgeons the methods used in different leading clinics. The effort was most successful and naturally as surgeons from different cities watched each other work, they were bound to carry home with them the best of the surgical procedures they had observed. Apparently this gave to Franklin Martin, of Chicago, the idea of organizing a greatly magnified and practical clinic.

In 1910, in Chicago the Clinical Congress of Surgeons of North America was organized, and 1,300 surgeons were in attendance. The organization was rather loose and Martin, with characteristic foresight, saw the possibility of banding these men together in an organization which would stand for the uplift of surgical principles and technique and practice. Hence, he formulated the organization of the American College of Surgeons in 1913, and after a founders' group had been formed, 1,059 initiates were enrolled into fellowship at the first Convocation.

In the Articles of Incorporation it is stated that the object for which the American College of Surgeons is formed is

"to establish and maintain an association of surgeons, not for pecuniary profit but for the benefit of humanity by advancing the science of surgery and the ethical and competent practice of its art; by establishing standards of hospital construction, administration, and equipment, and all else that pertains to them; by engaging in scientific research to determine the cause, nature, and cure of disease; by aiding in better instruction of doctors; by formulating standards of medicine; and methods for the improvement of all adverse conditions surrounding the ill and injured wherever found. To accomplish these benevolent and charitable aims, it shall be within the purposes of this corporation to use those means which from time to time may seem to it wise, including research, publication, education, the establishment and maintenance of libraries, museums, and other agencies or institutions appropriate hereto, and the co-operation of any other such activities, agencies, or institutions already established or which may hereafter be established."

Whoever wrote these sentences wrote a masterpiece because in the twenty-seven years since its organization the College has done every one of these things.

The historic position of the early beginnings of the American College of Surgeons is somewhat different from that of other colleges then in existence. Conforming to the democratic principles of this country, its fellowship was considered inclusive, not exclusive, and it was to be conferred upon surgeons of character, honesty, and ability without particular regard for examination. Certain simple standards were set up, but the supreme test was the recognition of the candidate's fitness by a group of surgeons, Fellows of the College, who knew him best because they worked together in the same community. Therefore, from the beginning the opinion of the State or Provincial Credentials Committee was the dominating influence against the admission of those known to be incompetent or unethical.

It is not so difficult to judge a man's knowledge of the theory and technique of surgery by examination as it is to know that he can apply this knowledge to the individual patient; it is important to know that the surgeon is able to work in a community without friction with his colleagues,

Presidential address of the retiring president, presented before the Clinical Congress of the American College of Surgeons, Chicago, October 21-25, 1940.

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and it is most important to know that he is honest in his relations with the patient. The College makes every effort possible to combat the evil of fee-splitting and while it may not be an issue in all communities and in all hospitals, it has been necessary to establish a uniform regulation to avoid discrimination and to require the medical staff and governing board of every hospital desiring approval to go on record against this practice. Once on record, it is the duty of the hospital management to exercise continuous vigilance to prevent fee-splitting under any guise. The pledge against the division of fees, which is signed by all initiates, was proposed by Dr. Albert Ochsner in Chicago in 1913.

The meeting held each fall is the high point of our College year. The program consists of papers and discussions, of clinics and operations, all illustrative of the progress of the surgery of the day. Those who formulate the program endeavor to give the meeting the benefit of the master minds of surgery. If you would take the time to examine the Clinical Congress programs through the last twenty-seven years, you would read an epitome of the progress of surgery in this country.

In 1920, the College began to organize three or four sectional meetings in different parts of the country each year. They have grown in time so that they almost rival the fall meeting and have been of immense aid in establishing contact with the Fellows of the College.

In a way these meetings are something like other medical meetings, except that they are better, and hence, it is necessary to look further for the great influence of the College. When we do so, we realize that we are part of a great organization exerting a power by the force of our numbers for the good of surgery. If for no other reason, you should be satisfied with your fellowship because, after all, that which concerns the good of surgery as a whole concerns each one of us.

At an early date it was recognized that the hospital and operating room were the laboratories of the surgeon and that many hospital organizations were careless regarding the equipment, the records, and the laboratory facilities. By 1917, the hospital standardization program was well under way and despite the hectic years of the World War our program was developed and a minimum standard for hospitals was adopted in December, 1917. Beginning in 1918, the College began a survey of the hospitals of the United States; these surveys have been made every year since until over 3,600 hospitals are now on the survey list and are regularly visited by members of the College staff.

In 1913, at the suggestion of Dr. Thomas Cullen, of Baltimore, a cancer committee was appointed that subsequently formed the nucleus of the American Society for the Control of Cancer. Later the College took over the bone sarcoma registry and in 1922 began assembling data of all cancer cases living five years or more after treatment. The College then established a minimum standard for cancer clinics and organized them in approved general hospitals. Today there are 345 approved cancer clinics.

In the same year, under the guidance of Dr. Charles L. Scudder, of Boston, exhaustive studies of the present treatment of fractures were conducted and the central fracture committee and regional fracture committees in different states and provinces have become one of the most important duties of the College.

In 1926, we organized a board on industrial medicine and traumatic surgery, which concerned itself with adequate scientific and ethical care of the ill and injured in industry; and this committee, although now fused with the fracture committee, has had a beneficial influence and has made many contacts with the large industrial concerns.

From the beginning, Canada was included in the organization of the College; and in 1920 and subsequent years, Drs. Franklin Martin, William J. Mayo, Thomas Watkins, and others visited the various South and Central American countries, thus binding the surgeons of these countries to the College so that it could be said to be representative of both Americas. As a result of these contacts and because of the standardization program of the American College of Surgeons, Dr. Francis P. Corrigan, now the United States Ambassador to Venezuela and an enthusiastic Fellow of the College, paid a great tribute to the College in his article, *El Libro del Hospital Moderno*.

The influence of the College was recognized during the first World War when President Wilson appointed Dr. Franklin Martin one of seven civilians to the Advisory Commission of the Council of National Defense. This year Dr. Evarts A. Graham, president-elect of the College, has been appointed chairman of the National Research Council Committee on Surgery in connection with the program of military preparedness. The chairman of our Board of Regents, Dr. Irvin Abell, has been appointed chairman of the Committee on Health and Medicine of the Council of National Defense. At the Clinical Congress held in October, 1917, the program was indeed a "war session"; and while we are not at war, you will notice from the program of the present meeting that we are preparing for defense.

It is interesting to me to note the duplication of thought about the two wars. The high point in the treatment of wounds in 1918 was the Carrel-Dakin irrigation; today it will be sulfanilamide. There will be many improvements in transportation, but I think that the basic surgery will be comparable. There is not a great deal of information in the medical literature of the past year regarding the surgical aspects of the war; but all surgeons liable to service in the event of war prepare themselves by searching every available source for information regarding the treatment of wounds and other war casualties and the hazards of industry in the conduct of war. As a matter of fact, in a total war, every doctor and every hospital is an integral part of the defense plan.

In his presidential address of last year, Howard Naffziger compared medical progress to a growing stream, the first spring feeding it arising in the far distant past until with the development of modern scientific medicine the stream has become a great river. I do not think it possible to say when and where surgery began because no doubt from the dawn of civilization and even before men attempted to alleviate suffering and injury by some form of material help. At any rate, we do know that much of the practice of surgery began in mystery and magic.

The earliest surgical operation which history records was the trepanning of skulls for the release of demons, presumably the epileptic seizures of the present day. Bloodletting began as a ceremonial procedure. Circumcision was practiced in 4,000 B.C. according to the picture record and the records in Genesis. In time superstition in medicine disappeared but, despite the enlightening developments of Galen and Celsus, surgery remained in the doldrums until Vesalius early in the sixteenth century taught true anatomy.

Often we hear of an attempt to distinguish between the art of medicine and the science of medicine. Actually, medicine is not a science but gathers its basic knowledge from true science and applies it to the cure of disease; and hence, after Vesalius, anatomical thought ran like a red thread through all of the developments of medical practice. In 1628, eight years after the landing of the Pilgrims, William Harvey announced the theory of the circulation of the blood; thenceforth physiology was inseparably associated with anatomy and surgery became more exact. Harvey taught that speculation alone was valueless; that advances in knowledge would result only from patient experiment, patient measurement, patient application of the method of trial and error; and

that the facts, if they were facts and if there were enough of them, would always speak for themselves. Patiently through the years the science of physiology unfolded its secrets to medicine until today we constantly talk in details of function, and surgery endeavors to restore normal function or to remove an offending organ.

Sometime in the eighteenth century the pupils of the great chemist, Robert Boyle, discovered the different gases in the atmosphere and this led to the discovery of inhalation anesthesia, the word "anesthesia" having been invented by Oliver Wendell Holmes. In 1584, Fracastorius wrote that contagion is infection passing from one individual to another. Step by step the picture was completed with Holmes, Semmelweis, Pasteur, Koch, and Lister standing out in the foreground. From the time when Lister developed the technique of antiseptics in 1865, surgeons were concerned with methods which combined antiseptics and sterilization by heat and allowed operations to be undertaken safely with ever increasing freedom.

For a long time there was not much progress except the perfection of details for fulfilling the doctrine of antiseptics. In 1910, Ehrlich produced salvarsan and this discovery not only revolutionized the treatment of syphilis but exerted such a stimulus to chemotherapy that today most progress in surgical technique is closely allied with the progress of chemical research.

Surgery benefited from the field of physics when in 1895 Roentgen discovered x-rays. The efficiency of this instrument of diagnosis and treatment has progressed until today, judging from reports which we hear, we may be on the verge of extraordinary developments by the use of the cyclotron. After Roentgen came the Curies and the isolation of radium, and its use particularly in cancer was another step forward.

These few remarks are introduced merely to furnish a backdrop to the stage on which is played the drama of medical progress. Scientists have discovered so much and the application of their discoveries have complicated medicine so that specialization has developed. For a long time physicians combined the art of general practice with the practice of a specialty. But with the great advances in medicine and science we have come to realize that major surgery is a complex procedure, requiring not only a knowledge of technique but a sound understanding of the principles of anatomy, physiology, pathology, chemistry, and physics.

In the past special training was obtained largely through the personal initiative of the physician.

A period of study abroad was considered necessary and Paris, Berlin, and Vienna were popular meccas for medical students. Courses were given in this country by certain postgraduate schools, but with the exception of the one at the University of Pennsylvania established in 1919, these courses were largely short in duration and rarely satisfactory. Most surgery was taught by the preceptorial method. The younger men became associated with established surgeons as assistants and gradually learned the technique of surgery. As the technique of surgery became magnified, it was realized that the training of the general surgeon and the surgical specialist would require more time and effort on the part of the individual. For many years there have been opportunities for surgical training in the medical school hospitals and in a few other institutions, but it was becoming apparent that the need for training exceeded the good available opportunities. The College realized that in its hospital standardization surveys it had the machinery to increase the opportunities for graduate training in surgery and the surgical specialties. The subject has received the continuous consideration of the Board of Regents since 1930 and several committees have studied the problem in its relations to the requirement for fellowship. During the past three years the committee on graduate training in surgery and the field staff of the College have done a great piece of work and we can announce that 200 hospitals and other medical institutions are participating in approved plans of graduate training in general surgery and the surgical specialties at the present time.

It is interesting to philosophize on the question as to what is a surgeon. In his presidential address read before the American College of Physicians last April, Dr. O. H. Perry Pepper attempted to answer the question, "What is an internist?" He found himself involved in a quagmire of words and meanings and definitions and finally concluded that

"an internist is a physician fitted by a sound and applicable knowledge of the basic sciences, a continued training in clinical medicine, a familiarity with fields outside his own, and an intellectual, rather than a manual or technical, approach to study, diagnose, and treat the diseases of the field of internal medicine to which he strictly limits himself, and to integrate with the knowledge of his own field that of the allied specialties."

With some change in phraseology this definition might define the surgeon. Much of surgical procedure is done, and rightly so, by the general practitioner, but a borderline is soon approached when the performance of a major operation on the

brain, the chest, the abdomen or the extremities involves not only manual skill but also a knowledge of anatomy, pathology, and the other basic sciences together with a group of the increasingly difficult problems of pre-operative and postoperative care. The surgeon, therefore, cannot be a general practitioner. He must have time to read, to study, and to observe the work of other surgeons and unfortunately cannot cultivate the personal and family psychology of the patient. He can be the general practitioner to whom he is consultant and ally.

The formation of the boards of certification has influenced the desire for residencies, and the trend of present opinion is that such a residency is necessary for adequate training in surgery.

"There is gentle irony in the fact that men who to a large extent were self-taught believe that their successors cannot achieve an education in the same manner."¹

One of the problems of the future should be a study of the effect of prolonged residencies on medical education, on hospitals, and on the practice of medicine. This movement is formulating a very difficult problem for the hospitals because much of their organization must be dislocated in order to accommodate the new and important links between the interne group and the visiting group. Staff members and boards of trustees must be convinced of the importance of the residency and must be persuaded that sacrifice may be necessary to make it effective. The senior visiting staff must assume a preceptorial attitude and regard themselves as graduate professors of surgery. The junior visiting staff is in danger of being squeezed out from above and below unless the adjustment is made so that they also take part in the training plan.

In due time the new system will produce more highly trained men. A present day problem as well as one for the future is to formulate methods or backgrounds that will enable the individual trained in the residencies for two, three, or four years to adapt himself to competitive medical practice. As the *New England Journal of Medicine* states, these men will start with a strong tendency toward group medicine rather than toward individual practice.

I think that now I have said enough and really have said little, but perhaps have offered some points for analysis. In 1874, Sir John Erichsen stated that "the abdomen, the chest, and the brain would be forever shut from the intrusion of the wise and humane surgeon." Unlike Lister he failed to envision the effect of Pasteur's germ theory upon the surgical operation. The researches

¹ Editorial. *New England J. Med.*, 1940, 222:1022.

in chemistry today seem to us to be revolutionary in their effect upon the treatment of disease, but our sons and our grandsons will develop other ideas which will be thought to be the extreme in modern methods. Unlike Erichsen, we must not

exclude any lesion or organ as immune from surgical attack. And then we might look forward to the time when medical science has progressed to the point when all surgery of a destructive type can be abolished.

MEDICINE IN THE NATIONAL DEFENSE PROGRAM

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SINCE the members of the American College of Surgeons, with the exception of the Canadians present, are practically all members of the American Medical Association, I felt that you would be interested in knowing of the work of its Committee on Military Preparedness. This committee was appointed at the session of the House of Delegates in New York in June following a request of the Surgeons General of the Army, Navy, and Public Health Services that the American Medical Association undertake a survey of the profession of the United States regarding the qualifications and availability of its members for service.

There are 179,000 doctors entitled to practice in the United States by means of legal registration, and a questionnaire was sent to each of these. Between 140,000 and 145,000 are in active practice, while the remainder have retired because of age, disability, or their having sought other pursuits. So far 115,000 replies have been received, of which over 50,000 have been transferred to punch cards. These punch cards contain the information furnished by the questionnaires and by using them in the International machine, one may in a few minutes get a list of men qualified in any branch of medicine. This work has been undertaken by the American Medical Association as a patriotic contribution to the National Defense Program and has entailed the employment of an additional sixteen persons in the American Medical Association office. It is hoped that within two or three months information will be at hand upon every doctor in the country. The only exemption in the Selective Service Act applies to students of theology and accredited ministers of the gospel. Deferments will be made to students in accredited schools, pursuing a course of study leading to a degree in

Arts and Sciences and also to those who occupy essential positions in their community. In order effectively to safeguard the health of the population and to furnish medical service to the armed forces, the medical profession feels very strongly that medical students should be permitted to finish their undergraduate education and, at least, one year of internship before being inducted into service. The Selective Service Act, however, provides deferment for students only until June, 1941; after that date any deferment granted to medical students, to internes, and to residents will be the responsibility of the local draft boards. While doctors should be willing to make such adjustments as may be needed in the event of an emergency, it would be unfortunate if in the defense program the classes of medical schools, the teaching program of medical schools, and hospital service should be disrupted by an undue number of students, of internes, and of residents being called into service. This can be avoided only by applying to the local draft boards and to the appeal boards for the deferment of those essential to these three activities.

There are approximately 15,000 members of the Medical Reserve Corps and these will be largely drawn upon to furnish medical service for the first increment of selectees. It is estimated that by July, 1941, the total strength of the army will be approximately 1,400,000 men, for which the services of 10,000 doctors will be required. The length of service of the vast majority of doctors will be one year, at the end of which time they will be transferred to the Reserve Corps on an inactive status. The information being gathered by the Military Preparedness Committee of the American Medical Association will make it possible to employ the services of doctors in position for which their training and qualifications fit them, and thus to avoid some of the mistakes and misfits of the first World War.