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## ADDRESSES IN HONOR OF DEAN EDSALL<sup>1</sup>

### HARVARD IN MEDICAL EDUCATION

By Dr. WALTER A. JESSUP

PRESIDENT, THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

DISEASE is an ancient and ever-present enemy of man. From the beginning of history we have reports of man's struggle against disease. In the attempt to understand disease and its cause and cure, man has dabbled in every known field from religion to sociology, from astrology to chemistry, from superstition to science. The history of primitive peoples abounds in all sorts of queer stories of resort to the magic of the medicine man, of almost every conceivable explanation of the cause and cure of sickness. Ponce de Leon was neither the first nor the last seeker after youth. His prototype has existed in every age and generation. The prevailing traditions, mores, faiths, have been constantly reflected in man's attitude toward disease and its cure. This is true not alone for the work of the modern scientific physician but likewise for the work of ancient Greeks—Hippocrates and Galen. In this scientific age it is hard for us to reconcile the fact that at the University of Salerno, which began to flourish in the eleventh century, medicine, astrology

and mathematics were the leading disciplines. For that day there was nothing incongruous in pairing astrology and medicine. In the days of scholasticism at Bologna the study of medicine was made a subject

<sup>1</sup> Read at a meeting in Boston, Dr. Walter B. Cannon presiding, in honor of Dr. David L. Edsall upon his retirement as dean of the Harvard Medical School and School of Public Health, October 23, 1935.

Before introducing the speakers Dr. Cannon said: "We are gathered here this afternoon to recall and evaluate some of the services which our friend Dr. Edsall has performed for medicine. I say some of the services because he has had so varying a career, he has contributed to medicine in so many different ways, that a satisfactorily complete estimate of all he has done would be impossible in a short afternoon meeting.

"More than a quarter of a century ago his knowledge of pediatrics was recognized by his election as president of the American Pediatric Society, and by his being offered the chair of pediatrics at Johns Hopkins and later at the University of Texas. For some time he was professor of therapeutics and pharmacology at the University of Pennsylvania. Later he was professor of preventive medicine at Washington University, St. Louis. For eleven years he was Jackson professor of clinical medicine at Harvard and during that time he inspired many young

of disputation in preparation for which the study of rhetoric was an ever-present need. For hundreds of years the advocates of instruction by means of dissection fought a losing fight against faith in material resurrection. Material for dissecting has been difficult to obtain even within our own generation. For thousands of years even the simple methods of trial and error were cramped because of restrictions imposed by superstitious belief in magic, by tabus and by ignorance in related fields.

With the rise of the universities of the world, medicine came in for its share of recognition. The writings of Hippocrates, Galen and the rest were translated, the Arabian practices were studied, but for long periods the belief in the infallibility of the writings of these authorities retarded even the most simple and elemental inquiry. The mood of acceptance of authority stifled question in every form. It is only on this basis that we can explain the long delay in discovering such physiological functions, as, for example, the circulation of the blood. Until modern times the ignorance of gross anatomy and simple physiology was profound. While the university recognized medicine as a thing to be taught, along with theology and law, the fact that the method of instruction and study was for the most part identical with that of the study of

theology and law is at least a partial explanation of the long-continued ignorance.

Those persons who lament the academic point of view in contrast to the application of knowledge should thank their stars that they do not have to contend with the inertia of earlier days. From the beginning disease has been closely identified with the church. Ecclesiastical and profane history abound with proof of the fact. In our own Colonial days it was not uncommon to expect the minister to render service as a physician. Casual practice was likewise very common. Physicians learned through a more or less well-defined system of apprenticeship. Reading and riding under the tutelage of a doctor was the accepted mode of making a doctor. What a haphazard method of training that was!

As early as 1782 Harvard commenced to teach medicine. Some three decades later, recognizing the necessity of a hospital connection for instruction in medicine, she moved her staff and students from Cambridge to Boston to take advantage of the opportunity for clinical material. The further settlement of the country brought a great demand for medical service, with a consequent growing economic opportunity for the doctor. It is hard for us to realize that during the past century upwards of four hundred and sixty medical schools were established in the United States and Canada. These schools were for the most part proprietary in support and sketchy in character.

At the turn of the century organized medicine, through the American Medical Association, officially recognized the confused and unsatisfactory conditions in medical education and practice and sought the help of the Carnegie Foundation for the Advancement of Teaching. Mr. Henry S. Pritchett, then president of the foundation, forthwith responded by recommending to his board of trustees that the foundation sponsor an inquiry into medical education in the United States and Canada. The Flexner report was the outcome. From that day until this the Carnegie Foundation has had an especial interest in education for the healing art. Mr. Flexner placed his finger unerringly upon the need for a sound medical education with an adequate scientific background, with ample clinical material, with competent laboratory and clinical instruction under direction that was responsible to society as a whole as distinguished from the individual doctor who might be interested in medical education for the time being or for wholly personal reasons.

The period intervening between 1910 when this study was made and to-day has been marked by a revolutionary change in social attitude toward medical practice, medical education and medical research. Weak schools have been closed and many really great medical schools have been developed. Through the

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men for their professional careers. As you probably know, he has long been recognized as a pioneer in the study of industrial disease in the United States. And he is known throughout the country as a great reformer of medical education. As dean he has done more to increase the resources and to promote productive scholarship in the Harvard Medical School than any other individual, in my opinion, except possibly President Eliot. As dean also, at the Harvard School of Public Health, he has developed that institution from small beginnings to an important agency for the assurance of public welfare.

"In all these various contacts with medical interests, Dr. Edsall has seen the profession steadily and seen it whole—in its proper place in the social order and its widening responsibilities for public health. Now in the short time available it is impossible to consider all these multifarious activities. We can consider only a few. I take great pleasure in introducing first Dr. Walter A. Jessup, president of the Carnegie Foundation for the Advancement of Teaching."

At the conclusion of the addresses Dr. Cannon said:

"The speakers have called attention to some of the more important services which Dean Edsall has performed, and we are grateful to them for the insight into the significance of these services that they have given us."

"It does not yet appear what Dr. Edsall will do with the time of his life—we hope that a long time—that still remains to him. You remember perhaps that as a young man he was interested in pediatrics. Perhaps now that he is an older man he will pay some attention to geriatrics. Geriatrics is a term that has been coined to designate the disorders of old age. Perhaps he might care to round out his contributions to medicine by starting a new specialty! Certainly it would be very pleasant if Dr. Edsall, as a geriatrician, would apply his wisdom to the care of some of us as we grow old together. But whatever activity Dr. Edsall may decide to engage in, or wherever he may go, I trust that he will carry with him the assurance that he has always our best wishes, our affectionate best wishes."

examining boards of the separate states, higher and higher standards for admission to practice have been adopted. Medical research, either in institutions of research, such as the Rockefeller Institute or in medical schools such as those at the Hopkins, Harvard and Toronto, and in departments of pure science as in chemistry, physics and biology, has dominated the imagination of the professions. Not only this, but there has been a dramatic recognition of the social significance of discoveries and new applications in the field of public health. Researches in the control of yellow fever, of diphtheria, of typhoid fever, of malaria, of smallpox, not only have contributed to the comfort of the individual person but have brought about such uniformly wide acceptance of this information by the public as practically to eliminate these particular diseases as public menaces. Great commercial interests, including industries, large insurance companies and stores, have recognized and accepted the economic importance of public health. In view of the wide fulfilment of modern plans for health service it is hard to believe that these ideas are so new. Much of the current talk of social security would have been unthinkable had it not been for the part played by public health agencies within the past quarter of a century.

Within this period we have witnessed a transformation in medical education and in standards of individual and community medical service. This has met the approval of the general public and as much cooperation on the part of the medical profession as might have been expected, but it has received its driving force from the centers of medical education and medical research and the leaders in these fields.

During these twenty-five years society has received the dividends on endowments that fostered Harvard, the Johns Hopkins, the Rockefeller Institute, the University of Chicago and other centers that have exemplified the best in modern medicine. Great sums have been invested in laboratories, hospitals or staff. The Rockefeller Boards have given tens of millions to the cause. Their immense gifts constitute but a part of the general outpouring of funds through private gift and public taxation. More dramatic things have happened in medicine during this period than at any other time in our history. Dean Edsall himself, in dedicating the Duke University School of Medicine, cited a long list of important changes that had occurred during his own active life as teacher and practitioner. Indeed, the whole atmosphere in which a doctor now works has altered from that of dependence upon the five senses to scientific acceptance of all the modern laboratory techniques. Dean Edsall has witnessed the establishing of the Wassermann tests; the control of diphtheria, hookworm and malaria; the use of the

x-ray in diagnosis and insulin in treatment. These additions have been profound in their effects upon the individual practice of medicine and the program of the public in regard to health, but they have also great significance to the doctor himself.

With the recognition of the social significance of skilful medical service has come the wide-spread acceptance of the necessity for providing superior service under more favorable conditions than had been possible heretofore. Dean Edsall says that when he started to practice medicine it was unethical for a doctor to take a contract appointment, in contrast with the present growing acceptance of medical service as a social obligation on the part of many industries and indeed in not a few governmental agencies.

Licensing physicians in some form or another is by no means an innovation, but within this past quarter of a century society has taken long strides in the direction of assuring to itself competent medical service by admitting to practice only those young men who are likely to be effective doctors. The schools of medicine are now being asked to assume an even larger share of responsibility not only for training but for the selection of those who are to be admitted to the practice.

Few persons interested in medical education have perceived so clearly as Dean Edsall the importance of richness of personality on the part of the physician. Dean Edsall has emphasized in his writings and his addresses the need for the physician to preserve for his patient the warmth of human sympathy without which mechanical application of principles and laboratory techniques can avail little in practical medicine. With a great native charm he has pointed out to the young medical student the importance of a knowledge of literature, not only as a great treasure to be enjoyed, but as a means whereby the physician may achieve a better understanding of human nature. No one has insisted more clearly than he upon the necessity for exercising sympathetic intelligence and judgment in making use of reports from the laboratory.

It is easy to set up programs of public health as distinct from individual practice. Not infrequently there has been a lack of close coordination of the service of the public health worker and the physician. But through research in the control of disease, enormous advances have been made within recent years, which tend to narrow this apparent gap. Should the present social philosophy in regard to group responsibility survive and expand, it is apparent that medical education as well as medical service will be greatly affected.

The Harvard Medical School, under the direction of Dean Edsall, has been vigorous in its attempt to meet the need for public health education. He has

defined the value of sound public health policies to industry, commerce, government and society. Moreover, no one has presented more clearly the attractiveness of the possibilities of public health service. He has been a constant advocate of the importance of providing public health with a background of pure science, chemistry, physics, biology, bacteriology, as well as of utilizing every increment of knowledge turned up in the fields of economics, sociology, psychology, and the like. He has even gone so far as to advocate that many public health workers might well be sociologists, chemists, psychologists, and what not.

The Flexner report in 1910 showed Harvard to possess one of the most richly endowed medical schools of the day. During the succeeding years the Medical School has borne its rightful share of responsibility for being in the vanguard. The impact of science on medicine placed a new responsibility for the training of doctors upon the university as a whole. The co-ordination of the clinical and the laboratory staff has been no easier at Harvard than it has been at other institutions. From the very nature of the case the clinical man, with his laboratory material in the form of living human beings, has operated under somewhat different pressures than have prevailed in other laboratories. Few persons recognize the difficulty that clinical men have found in adjusting themselves to the academic traditions of a university. Dean Edsall has been conscious of this problem throughout his entire administration. He has made notable progress in the co-ordination of the clinical and the laboratory phases

of medical education, not alone through the capitalization of laboratory opportunities in the various hospitals; the clinical work has been illumined by the laboratory work in Harvard College as well as in the laboratories of the Medical School itself. The complexity of the administrative problems of a medical school is not fully realized: how to utilize leadership wherever it may be found; how to encourage brilliance in unexpected places; how to remain sufficiently unconventional to give free sway to new ideas. The answers to these questions baffle every dean, but in addition to these marginal activities there is the constant necessity for maintaining the school as a going concern. The successful medical administrator has been very rare. Dean Edsall has been able to succeed in an exceptional degree. In addition to his immediate responsibilities he has associated himself closely with the leading men in this country and Europe who have similar interests. To those of us who believe in the importance of great personalities wherever found in an educational program, it is heartening to note that the new president of Harvard is committed to the policy of filling vacancies with men of promise and distinction. With such a tradition and such a policy we may expect soundness of scholarship, research in keeping with the reputation of the university, clinical skill equal to the best that is known, recognition of essential elements in a program of preventive medicine and public health education that expresses the best that can be achieved within the limits of our social, economic and political organization.

## THE DEVELOPMENT OF CLINICAL SUBJECTS AS CONTRIBUTING TO UNIVERSITY WORK

By Dr. EUGENE J. DuBOIS

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It is a great personal pleasure to me that I am permitted to take part in this afternoon's tribute to Dr. Edsall. It so happens that my own interest in research was largely stimulated by Dr. Edsall, something of which he has been totally unaware. The particular medical school that I attended seemed to have little interest in anything except the preparation of men for hospital internships. I do not think that any student was ever referred to an original article in the literature. Our diet was one hundred per cent. text-book. When I was interning at the Presbyterian Hospital, however, my chief, Dr. Francis Kinnicutt, for the first time in my career brought me face to face with an original article, and it was one of Dr. Edsall's papers dealing with typhoid fever. That started me on a study of typhoid that lasted for many years. Since

that time I have frequently been indebted to Dr. Edsall's contributions and it was only a week ago that I had to consult and quote one of his articles on respiration.

Dr. Edsall was a leading member of the group of research clinicians who changed the whole atmosphere of clinical medicine in this country. His own studies were important, but I think the medical world is even more indebted to him for his share in the development of the Harvard Medical School. It is not too much to say that during the period of his deanship Harvard has taken the leading position among the medical schools in this country. The situation in Boston has been particularly fortunate, although I suppose there have been difficulties that are not apparent to New Yorkers. Harvard seems to have worked out a happy