THE PLACE OF THE ANESTHETIST IN AMERICAN MEDICINE

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What I have to say here regarding the place of the anesthetist in American medicine is not an encomium either of the men in this field of medicine or of their contributions. I offer no praise of the anesthetist as a scientist or as an humanitarian, nor do I glorify the relief from suffering afforded by his skill and knowledge. If then, I depart, as my negotiations must signify, from the easy, ingratiating words customarily spoken on occasions of this kind and under a title such as I have chosen, it is with a purpose.

That purpose is not to define the calling of the anesthetist in terms of what has been done and what can be done in the laboratory or at the operating table or at the bedside. It is not the contributions of the anesthetist with which I deal, but instead, the public regard in which these contributions are held. And I shall emphasize the fact that it is this public regard which determines the place of the anesthetist in American medicine.

There are some here among you, perhaps, who feel that your duties as anesthetists are complete when to the individual patient you have given the best anesthesia that modern knowledge affords. Admitting the primary importance of good anesthesia, this view is, nevertheless, to my mind, a limited and a narrow one.

It contributes little to the real advancement of anesthesia. It is not enough that good anesthesia can be given and that it is given to a fortunate few. What is of real importance is that all anesthesia shall be the best that modern knowledge affords. And this desirable end can be reached only when the public recognizes the need and the importance of good anesthesia; and recognizes most of all that the administration of an anesthetic is a major therapeutic operation. It is only with such

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recognition and with such understanding that the anesthetist will receive that public regard and public support which are essential to the fullest development of his calling. And to attain this necessary public recognition, the anesthetist must not only give good anesthesia; he must also shape public opinion.

It is thus a social rather than a medical matter with which I deal. And if, in dealing with it, I skirmish rather than strike to the center, if my views seem philosophical rather than practical, and if I speak in analogy, it is because no one can give direct and simple solutions to social problems. I do not need to call your attention to conditions here and elsewhere to emphasize the fact that our knowledge toward the solution of social problems in any walk of life is meager. You and I cannot solve the social problems of today. But we can recognize some of them and we can try to analyze some of them. And from this analysis there are certain inferences which we may draw at least regarding the social forces which operate in medical progress. Some of these inferences will form the theme of my discussion.

It is obvious beyond question that true progress is achieved in medicine only when two conditions have been fulfilled. The first of these is medical discovery; the medical research which establishes the means by which disease and suffering can be prevented or alleviated. But discovery alone prevents no disease and it alleviates no suffering. Medical discovery without the fulfillment of the second condition is of academic interest only. And this second condition is more of a social than a medical matter. It is application. Application, utilization, in turn, are determined by public regard, public opinion. Such application comes only when public opinion is shaped. The shaping of public opinion is a social matter.

It further has been an obvious fact in medical history, but never more obvious than at the present, that the benefit that could be conferred by any measure of medicine and the extent of the need for it are no direct indications of the regard in which it is held by the public or the extent to which it is accepted and applied. Regard and application come when public view is shaped to an appreciation. No beneficial measure of medicine ever reaches public acceptance and support on the basis alone of laboratory experimentation or clinical investigation. It receives the recognition and support only when the public view is shaped to an appreciation.

And finally, medical regard and public regard go hand in hand. Public opinion is the doctor's opinion. He is a member of the public. Public demand and regard shape the education in our medical schools.

The only common denominator in all these inferences is the shaping of public opinion.

The three inferences are my propositions. Let me now expand and illustrate them. I have in view particularly the situation of anesthesia but my illustrations may take me far afield.
My first proposition is, I repeat: The benefits that could be conferred by any measure of medicine and the extent of the needs for it are no direct indications of the regard in which it is held by the public or the extent to which it is accepted and supported. Regard and application come only when public view is shaped to an appreciation.

More than 300 years ago Paracelsus laid the foundations of chemotherapy. The new branch of therapy obtained public regard through the unfortunate method so characteristic of the efforts of Paracelsus—that of contention. The members of the medical profession and the public as well took sides in violent controversy as the herbalist and mineralist; the followers of Galen and the followers of Paracelsus. The public attention was there but the difficulty lay in the fact that the scientific basis was inadequate. The basis of controversy is too much public opinion and too little fact. Such a situation in time arouses ridicule which forms its own public opinion—such ridicule as that which was once directed at a controversy of this sort with the statement that the patients of the herbalists died of the disease and those of the mineralists of the remedy. As a matter of fact, except for steel in anemia and sulphur for seabies, little benefit to the patient was obtained from the minerals. True, mercury given just short of therapeutic mayhem hastened the disappearance of the secondary manifestations of syphilis, but it had little effect on the tertiary.

And then, three centuries after the time of Paracelsus, Ehrlich introduced salvarsan. This time it was the laboratory and clinical side which was fully developed. This time it was the social side which lagged. Syphilis continued to exist and to exist plentifully in the presence of what was offered against few diseases—a positive method of diagnosis and a specific remedy.

This anomalous situation, in which there was a prevalence of a disease on the one hand, and, on the other, certain means of control, might have continued indefinitely had not, within the last few years, a deliberate drive, with which you are all familiar, been made to break down the barriers. The breakdown was not accomplished by developing better therapeutic methods, or by clinical demonstrations. It was broken down by radio, newspapers, magazines and books and by word of mouth which led to open discussion. It was an effort made in what should be the most cherished privilege of any profession, that of shaping the folkways of our people. We once called it education; we now call it propaganda.

The doctor often looks down upon this shaping of public opinion; he treats it with indifference, with aloofness, and that in spite of the fact that for him, and for the public, it is equally as important as medical discovery. The doctor, I fear, forgets that his calling is a social calling. At times, although he may complain of fees, he seems to disregard the fact that his calling involves not only personal but also broad and fundamental problems of economics—the direct or indirect pur-
chase of his skill at a level comparable with the service he renders. The important feature is the value placed on this service by the public. The value placed by the public is not based on definite and tangible value received; it is determined by the public's opinion of value received. The patient of today too often takes anesthesia for granted as an accepted accessory to surgical operations for which he must pay as he does for the rent of the operating room. In contrast I ask you what would a patient, of say a hundred years ago, faced with an inevitable surgical operation, have paid for the certainty of painlessness? Is it actually any less important to the patient of today who accepts his anesthesia as a commonplace? The often repeated statement that it isn't lack of appreciation but of economic necessity that leaves the doctor's bill unpaid is a sophistry. No one yet has talked of subsidizing the automobile manufacturers because the public appreciates but cannot pay for automobiles. The fact of the matter is that the quite opposite attitude toward the medical fee is a cultivated one—cultivated now to a point when our citizens are beginning to think that medical service for everyone poor and rich alike is to be regarded as a civic contribution like the paved roads. The city pays for the roads but the citizen still pays for his own automobile. It is all, gentlemen, a matter of cultivated public opinion; the establishment of value by the public. And in these matters the modern physician has not influenced public opinion but instead has been influenced by public opinion. He has assumed something of the self-protective attitude of the cloistered research worker, of the austere institutional clinician. He has deliberately assisted the public in cultivating this regard of him. And it is to his detriment and I think to the detriment of public interest.

Public opinion, for good or for bad, is shaped by propaganda. People use one toothpaste, or another, not wholly because of the proven merits of the product, but because of propaganda. Have you ever stopped to think why the public, on the one hand, learns so quickly of any discovery in dietetics, and, on the other hand, so slowly of some medical measure, say the striking benefits of modern scientific anesthesia? The food discoveries are popularized by food manufacturers for commercial interests. Commercial interests know the value of good propaganda. Among them it does not have this euphonism; it is known as advertising. Discover a new vitamin today and tomorrow it will be in beer and bread and the day after the technical terminology of the nutritionist will roll glibly off the tongues of 100,000,000 people. The same 100,000,000 people still regard chloroform as the major anesthetic agent in use and look upon the administration of an anesthetic as something requiring only slightly more skill and professional knowledge than the giving of a dose of castor oil. The members of the medical profession are inclined to believe—at least so their actions would indicate—that the world will pause and eagerly, seriously and intelligently weigh and ponder the best in therapy and will then in sol-
emn decision accept and use it. There is no greater fallacy. The public does not ponder and weigh; in medical matters it has not the knowledge to do so—only the emotions. It takes its opinions fully formed and accepts those which are forced upon its attention. This direction of the public in the shaping of folkways is education, propaganda, advertising—take whichever term suits your taste. Each can have dignity; and each can be a public service.

Before my digression on publicity I had in a few sentences recapitulated the progress made in one branch of chemotherapy to essential completion—from discovery to application. Let me outline now some steps in the progress of anesthesia.

First there was the great discovery of principles. Here are the stories that are familiar to you and even becoming familiar to the public. They are those of nitrous oxide and ether and chloroform—Davy, Long, Morton, Wells and Simpson. The sum total of the propaganda value of these stories is that anesthesia is available; that there are drugs which give a blessed relief from pain. The sum total of public opinion formed is that it was unpleasant to have an operation before the days of anesthesia. This was very useful propaganda 90 years ago when the principle of anesthesia was under criticism. Today it is about as useful as is propaganda in favor of the principle of utilizing medicaments or surgery or having hospitals or trained nurses. Propaganda which deals only with principles now accepted, obscures the one feature of anesthesia which is of importance to the public today—that is the administration of anesthesia.

The second era in the progress of anesthesia was the search for new anesthetics. This was led, as you know, by Simpson with the discovery of chloroform. It is true that Simpson did a yeoman's service in shaping public opinion in his forceful pamphlets justifying the use of the principle of anesthesia. But chloroform was a long time ago. Since then we have seen the new anesthetics multiply in number and in professional usefulness. But these things are wholly the technical equipment of the anesthetist. They permit him to give better anesthesia but they mean little in creating public opinion. It is not the anesthetic agent which should be held up for public interest, but the administration of the anesthetic.

We have lived through the period of apparatus. We have seen the towel on a wire mask give way to a complicated respiratory apparatus with delicate controls. But again this means little to the public except that in the increasing number of moving pictures showing surgical operations, it is evident that the patient is still alive when the rubber bag fills and empties rhythmically and the valves jingle. In such pictures which express public views and public regard the anesthetist is a handsome nurse, or, lacking this appeal, he is obscured beyond the frame of the picture so that the surgeon may have the center of the stage.
And gentlemen, it was not the invention of a new antiseptic, of a new scalpel, or a new operating table that gave the surgeon—I speak collectively—the prestige and pre-eminence which he enjoys in public regard. This prestige gives surgery a prominent position in the curriculum of the medical school. It draws many of the better students into this field.

Today—to my mind at least—where the anesthetist, and again I speak collectively, is weakest, is in this very social aspect; this matter of prestige. The analysis of prestige and its importance brings me to the last of the propositions which I postulated: Medical regard and public regard go hand in hand. Public opinion is the doctor’s opinion. He is a member of the public. Public demand and regard shape the education in our medical schools. And I may add that the public regard in which a branch of medicine is held is no direct measure of the benefit derived from that branch of medicine. It is a measure of the shaping of public opinion.

In broadest terms what I am saying is that throughout the ages the respect in which the doctor was held, the veneration bestowed upon his calling, and the support given to him have had absolutely nothing to do with the benefits the doctor and his calling have conferred upon the public. The regard given him is a cultivated regard; it is a fortunate coincidence when he deserves this regard.

Let me support my point with generalities. Look back, if you will, at the medicine man of uncivilized people; from our point of view all that he possessed was a bag of tricks in psychotherapy, and a few empirical methods of drug therapy, and yet he was held by his people in a veneration that amounted to actual awe. He was the great leader of his people.

Look next at the physician of the late Middle Ages and the Renaissance. He had far more to offer than the savage, but nevertheless he was regarded with no veneration. He was a menial. The surgeon was a barber.

And then look at the physician of the late 18th century, particularly in this country. That was a period in which men’s minds were turned to serious matters. Devotion to principle was characteristic of the day. Public-minded, socially-minded men devoted their services to the needs of their fellow men with an almost religious enthusiasm; they were in medicine and they were in public affairs. They followed medicine as a duty of service to their fellow men; they signed the Declaration of Independence. They may—and often did—commit therapeutic outrages on their patients. You will recall Rush’s famous 10 and 10; 10 grains of calomel and 10 grains of jalap at a single dose, often with copious bleeding. But he and his brethren were regarded with the highest respect. Their position in the public mind was far higher than that of the physician of today, in spite of the fact that what they had to offer as science was negligible.
You remember that famous remark of Dr. Benjamin Rush when he expressed his regard of science. He said "Medicine is my wife and science my mistress." You may remember, too, the waspish comment a half century later of Oliver Wendell Holmes when he said: "Medicine may have been his wife and science his mistress, but this breach of the seventh commandment cannot be shown to have been of any advantage to the legitimate recipient of his affections."

I bring in this anecdote because it shows more clearly than any words of mine the tendencies of the times. Holmes, present on that day when anesthesia was first publicly demonstrated, came in the era when science was beginning to dominate medicine—when the whole problem of the ills of mankind was to be solved by science and science alone. The laboratory and the clinic rather than the public place were to become—and then did become—the retreats of medicine. The door closed on the doctor. He was engaged, it is true, in a fundamental feature of his profession—the accumulation of knowledge. But it was to the exclusion of an equally fundamental feature—the shaping of public opinion to the full application of that knowledge.

In consequence of his sequestration a mode of thought was created. It was one which put the premium on medical discovery and not on medical application. In the last hundred years, with the introduction of the exact sciences into medicine, medical research has yielded some of the most beneficial knowledge that the human race has ever acquired. Enthusiasm has grown high and the mode of thought crystallized. The beginning and the end of medicine seemed to be research; the finding of new and better ways. And that, unfortunately, in the disregard of the fact that discovery without application is only of academic interest. It was a miserly method; the accumulation of valuables without putting them into circulation. The social side, the equally dignified propaganda side of medicine, was largely ignored, or, if not ignored, handled so badly or with such indifference as to fail in its purpose. It was treated with contempt as below the dignity of the doctor.

Now I speak feelingly on this subject and for a personal reason. I am, by sheer chance, a research worker; a laboratory man. But ten years ago I held much the same idea that I hold today regarding the need of propaganda although my views have changed considerably on how it should be done. At that time I was offered radio facilities to talk on such subjects. To the possible disadvantage of my professional career, I rather unwisely accepted.

For a little over a year I continued to talk with considerable criticism from some of my scientific confreres. The criticism did not come because of the amateurishness of my talks—and they were amateurish—but because such work was not consistent with a scientific career. So pressing was the criticism that I felt it then advisable to stop. That was ten years ago. In the intervening years conditions have changed. Medical radio propaganda of a similar sort—mostly rather bad in ex-
ution and misdirected I fear—has now become reasonably respectable. Time on the radio is eagerly sought by many medical societies. This year, to my amusement, the talks I gave with only a meager knowledge of the principles of propaganda ten years ago are now being repeated nearly verbatim by six different medical groups which have been given radio time. The certain conclusion that one must draw is that, while the principle of propaganda has been given some respectability, the method of carrying it out has not correspondingly improved.

In these rather personal digressions I have wandered from the point I was trying to make that public opinion is shaped by social endeavor and not by laboratory and clinical discovery. I have spoken in generalities. Let me next trace out along a somewhat different line a specific example of the development of prestige and the importance of prestige to the advancement of any branch of medicine. I turn to the surgeon. Incidentally I shall speak only of the advantages of prestige and deal with none of the disadvantages, the most obvious of which is the scramble of the mediocre toward the specialty which at the moment enjoys prestige.

As you are all aware, the surgeon did not always have prestige with the public or even the reasonable respect of his medical associates. In this regard there is a most pertinent and illuminating line in that ancient ritual which we call the Oath of Hippocrates but which in reality was the more ancient oath of the medical priests in the Temples of Aesculapius. It says, in effect: We, as respectable physicians, swear not to cut for the stone but to leave this to men who do such things. This stricture was not directed at the urologist, but at the surgeon. The surgeons were the men beyond the pale of professional respectability who did such things. Such was the attitude toward the specialist in surgery in the classical period of medicine. It was not one of great prestige. And it sank distinctly lower during the subsequent Arabic period of medical supremacy. Surgery was menial work; the professional standing of the surgeon was something comparable to that of the hospital orderly of today.

This regard of the surgeon carried over into Europe. No clearer indication of the prestige, of the recognition, or the reverse, of the importance of any field of medicine by the public, is to be found than in the curriculum of the medical school. In the early great medical schools of Europe no surgery whatever was taught. You will remember that Ambroise Paré, the 16th century Father of French surgery, was a barber. Only royal insistence obtained for him a grudging recognition by the medical men of the period. You may have read his Surgery and you may have read one of the standard medical textbooks of that day. If you have, you will see that Paré with his surgery had far more to offer than the internist with his comparatively greater prestige. All the physician had, as contrasted with the surgeon, was a more scholarly social distinction in the eyes of the public. Yet this public opinion was
sufficient to literally abolish intelligent surgery. By the time of Louis XIV, Paré's surgical knowledge had actually been so far forgotten that when the king developed a fistula in ano none of his attending medical men knew how to perform the necessary operation. It required six months study and preparation in a veritable medico-surgical comedy before the operation was performed on the royal posterior. This incident brought royal favor to surgery. Royal favor brought public regard with a revival of surgery. Of such things, gentlemen, is prestige created.

And I may add, parenthetically, that this was not the only specialty of medicine which profited by royal example. Obstetrics made its first stride toward social acceptance when Louis XIV had a male midwife for the confinement of Lovalliere. You all recall the public opinion created in favor of anesthesia by Queen Victoria's acceptance of chloroform at the birth of Leopold.

A sounder but no more effective prestige than that of royal favor was given to surgery by John Hunter when he introduced surgical pathology. This step made the surgeon something more than a technician who clipped off legs or arms and tied up aneurisms. It brought in surgical diagnosis. Surgical diagnosis required something more than manual dexterity. It required intelligence and education. A surgeon of the times, which was only about 150 years ago, said that John Hunter had made the surgeons gentlemen. This surgeon, in his statement, did not mean that the men of his calling had gained prestige with the whole public, but only with that part of it represented by the physicians. It meant that after the long struggle the surgeon might stand on a level with the physician and that the curriculum of the medical school would, in consequence, include a fair proportion of surgery. The public prestige of surgery followed. Inseparable to its development were the discovery of anesthesia, antisepsis and asepsis, the founding of trained nursing and the rise of the modern hospital. Anesthesia and antisepsis were taken as adjuncts to surgery; trained nursing originated and grew as surgical nursing; and the modern hospital was built to house surgery. The public saw these things, the public recognized the spectacular success of surgery; and surgery became, in public regard, the prodigy of medicine. Public prestige meant large fees; large fees, plus prestige, meant a flood of students seeking surgical training; this demand further influenced the curriculum of the schools. And as a final advantage, surgery was personal. As a branch of medicine it has done far less toward modern health and longevity than has sanitation, but sanitation lacks prestige because it is impersonal. From the World War there came a score of books of surgical reminiscence for public consumption. There was not more than one that I know of on sanitary reminiscences. And yet the benefits conferred by sanitation were profoundly greater than those of modern surgery.

As I understand it, the sound, enduring establishment of any specialty of medicine is predicated upon three major points:
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1. It must be an intellectual as well as a manual occupation.
2. It must receive respect and prestige from the other members of the medical profession. This respect may come primarily from the doctor as it did in surgery, or it may follow public opinion.
3. It must have public comprehension and must receive public respect and prestige. In short, it must appeal to the public.

Most sketchily I have traced out these steps in surgery. Let me apply them in turn to anesthesia. Anesthesia is new and anesthesia got off to a bad start from its very beginning. There was for years in anesthesia no intellectual or scholarly basis; it was a technical procedure carried out by rule of thumb by men or women who had no special knowledge of the respiratory and circulatory physiology and of the pharmacology that today are the primary requirements of the professional anesthetist. Anesthesia was the giving of a dose of medicine. The dose could be administered by the nurse or interne and, in an emergency, by a layman. A good many patients survived this sort of anesthesia. For that matter, a good many patients survived surgery before the days of Lister. Moreover, anesthesia was rarely, if ever, administered without accompanying surgical procedures and those were the days of rapid traumatic surgery. It was difficult to separate the risk of one from the risk of the other. Surgery was recognized and accepted as a hazard. But less well recognized was the fact that bad anesthesia often added immeasurably to the hazard of surgery—not the risk on the operating table of death from anesthesia, but that of subsequent failure hours or days after the operation was completed. In the maze of variables the part played by bad anesthesia was obscured.

I speak feelingly of bad anesthesia of the not very remote past—and there is still much—for I was once, for a short time, an anesthetist and a very bad anesthetist. During my internship I was trained by a nurse. I was given a cone, a can of ether and a few empirical tricks. The memory of those days had a salutary effect on me. In later years when it came time for me to undergo an operation—a tonsillectomy—my first thought was to obtain the services of the best anesthetist I could find. The second, and very secondary, was to find a throat specialist. Any good operator—and there were dozens at hand—could do a safe and competent tonsillectomy. But anesthesia, possibly because of my early experience, possibly because I was a respiratory physiologist, was a serious matter. It was a major therapeutic procedure without regard for the significance or insignificance of the operation. That is a point that the public does not appreciate nor, for that matter, some members of the medical profession.

If the members of the medical profession at large held such convictions, then the teaching of the principles of anesthesia would not, in some otherwise good schools, be crowded into physiology and pharma-
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cology and its clinical aspects dismissed with a few demonstrations. It would be taught, as it should be taught, and I hope soon will be taught in every school, so that every medical student would leave the school with a beneficial and practical knowledge of respiratory and circulatory physiology which most do not get; and with an appreciation of the vast fund of knowledge and of the judgment that the good anesthetist must possess. If he did obtain these things which seem so essential a feature of a medical education he would carry with him a high regard for the specialty of anesthesia. If the members of the general public shared such views regarding anesthesia—and they are perfectly willing to share them if they are told of them—the anesthetist would come into his rightful position.

Thus, gentlemen, it seems to me that the future position of the anesthetist in American medicine is largely a matter of social change. The anesthetist will not establish his position by laboratory and clinical research alone, or by the development of new anesthetics and new apparatus. He will establish it only when he deals with the important but often neglected social feature. Even in spite of this neglect by most anesthetists the fact remains that the anesthetists have, during the last decade, made more progress toward establishing their specialty than has any other group in the profession. So far the progress has been mainly from within. It has been organization, the founding of journals and sections and the insistence on better teaching of anesthesia. And I do not need to tell you here that for this progress you owe a great debt to one of the most socially-minded and certainly one of the bravest men I have ever met—Dr. F. H. McMechan.

And now, in conclusion of this rather discursive and rambling talk, I am going to assume that you agree, at least in part, with my views. And in so assuming, I am going to presume so far as to offer some practical suggestions.

The first of these is that propaganda does not mean of necessity great radio programs, magazine articles and books. They are vastly helpful. But the first step is an earnest conviction on the part of the anesthetist of the importance of his calling and with this conviction an enthusiasm to tell of it by word of mouth to those with whom he comes in contact. Word of mouth may be slow, but it is the soundest propaganda there is. If the efforts toward shaping ideas go on further to public talks and magazine articles, then do not fall into the common fault of dramatizing discovery. Dramatization is emotional and sound social points cannot be put over in a setting of emotions, only conflict and fear. There is no need of arousing interest; the public already has an avid interest in all medical matters. Discovery alone so often emphasized in medical propaganda is not the feature to bring pointedly before the public. Discovery is medical research; it belongs to the doctor. The public plays no part in it except possibly to provide funds. The point to emphasize is application. What good does it do anyone to
announce over the radio, and in the papers, that a new anesthetic has been discovered? The announcement provides only table talk for the members of the public. It leaves no impression of the importance, the skill, the knowledge, of the man who must administer the anesthetic.

Today the public, by and large, believes that the important decision in anesthesia is what anesthetic they will be given, or possibly what method will be used. When, by propaganda, you have changed this view to one in which the important decision is what man shall give the anesthetic, then the problem of the place of the anesthetist in American medicine will be solved.

A Section on Anesthesiology was established in the American Medical Association during its Ninety-First Annual Session, which was held in New York City, June 10–14, 1940.