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THE TEACHING OF OBSTETRICS*

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AT THE meeting of this Association held last year it was resolved to submit to the Council of Medical Education of the American Medical Association and to the American Association of Medical Colleges, a plea for equal recognition of General Surgery and Obstetrics in the curricula of our medical schools.

The pathway of obstetrics, long and perilous as it has been, recalls the epic of the Odyssey. Let us hope that it will end as happily for obstetrics as it did for Ulysses who succeeded in freeing his own house and in recovering his kingdom.

From the time of the introduction of the obstetric forceps the practice of midwifery by the medical profession was fairly easy sailing, though it is of interest to note that as late as the eighteenth century there was much prejudice against the obstetrician. Gaillard Thomas writes of the feeling of the community when Dr. James Lloyd, a pupil of Smellie and Hunter, settled in Boston in 1753. He was the first of American obstetricians and was soon followed by William Shippen of Philadelphia. With these two men began the struggle to place obstetrics on a parity with medicine and surgery in America. The success of their efforts is attested to by the fact that in 1762 Dr. Shippen delivered the first course of lectures on obstetrics in Philadelphia, and four years later Dr. J. V. B. Tennant was appointed to the chair of obstetrics in New York City. From this time to the present, obstetrics has held a creditable though not too eminent position in medical education and practice.

*Address of President, American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Toronto, September 11, 1928. The transactions of this meeting will be published in a special issue of the Journal at a later date.

NOTE: The Editor accepts no responsibility for the views and statements of authors as published in their "Original Communications."

In the sixteenth century Dr. Veitis of Hamburg, Germany, was condemned to the flames for attending a woman in labor; while in our own land, as late as 1754, Dr. James Lloyd of Boston and Dr. William Shippen of Philadelphia were roundly denounced for their immorality and licentiousness in a similar performance of their professional duties. But the calumny heaped upon these two men was as nothing compared to that which was meted out to Doctor James P. White as an aftermath of an obstetric demonstration in a clinic held in the Medical Department of the University of Buffalo, New York, in 1850. White was charged with the commission of acts of outrage against the rights of the community, against decency and propriety. He was libeled by the press and bitterly attacked by members of his own profession. But happily he was ably supported by members of his faculty and by such eminent men of the day as Chandler R. Gilman, Professor of Obstetrics in the College of Physicians and Surgeons of New York, Charles B. Coventry of the University of Buffalo, and Austin Flint of New York. These and many other medical men of eminence testified in the suit for libel of "The People versus Horatio N. Loomis." The vindication of Dr. White resulted in the establishment of the first obstetric teaching clinic in America and the honors go to the University of Buffalo; although it is said that in the United States the first systematic clinical instruction in obstetrics was given in Baltimore by Rohes in 1874.

The first course of lectures on midwifery given to men was probably the work of Gregorie, the younger, in 1733. Three years later Smellie began his private lectures in London to be soon followed by Strassburg, Berlin, and Gothenburg. Dr. Young of Edinburgh is authority for the statement that prior to 1751 midwifery was taught only by lectures in Paris, London, and Edinburgh and from the middle of the eighteenth century courses of lectures and lying-in institutions were established in the chief cities of Europe. Fairbairn tells us that "England lagged so far behind Scotland and the Continent that it could not boast a University Professorship of Midwifery, and, what is still more startling, till the Medical Act of 1886, it was unnecessary for the medical student to be qualified in midwifery before being registered as a practitioner."

During the course of the second half of the eighteenth century obstetrics became a part of the clinical instruction in medical schools. In this way physicians gradually took the practice of obstetrics out of the hands of the surgeons. Thus obstetrics gradually became separated from surgery. However, clinical instruction in obstetrics was still a part of surgical clinics until late in the nineteenth century in certain cities in Germany. Germany was trailing behind France, Holland, England, and Scotland when John George Roederer, at the age of twenty-five, was called to Göttingen in the middle of the

eighteenth century. In his inaugural address he claimed for obstetrics equal recognition with medicine and surgery. He founded an obstetric pavillion at Göttingen and placed German obstetrics on an equal footing with that of other countries.

It may be said that the emancipation of obstetrics from surgery was "the result of the introduction of the obstetric forceps and of the writings and labors of independent teachers of obstetrics whose endeavors were directed to the making of labors less bloody and less dangerous."

Our English colleagues (notably Prof. W. R. Dakin of Saint George's Hospital, London) are wont to speak of midwifery as the Cinderella of medicine. When we reflect upon the struggle which obstetrics has endured in securing recognition alongside of medicine and surgery, we recall the emotions of our childhood days when we believed in fairies; when we saw, in our fancies, poor little Cinderella sitting in the ashes. And how we resented the two elder, adopted sisters when they took away her toys and gave her all the hard work to do. And how she yearned for fine dresses that she, too, might go to the ball! But eventually, you will recall that Cinderella did go to the ball through the gracious metamorphosis of pumpkin, mouse-trap, mice and lizards and the kindly intervention of the fairy god-mother. To be sure, Cinderella was rebuked by her elder sisters and for a time she again found herself sobbing among the cinders. And then how delighted we were when the messenger came and drove her in a fine coach to the palace where the Prince awaited her and made her his bride. We will not pursue the story further because it does not end as we would have it for the two elder sisters. We would not depose medicine and surgery from the high positions they have attained, we only ask that obstetrics may share with them, share and share alike.

From the standpoint of emergencies requiring masterly and timely exercise of one's faculties, obstetrics may be fairly said to assume priority over all other departments of medical practice. Confronted with such emergencies as obstetrics presents, the practitioner has no time for sharpening his wits or for awaiting the assistance of a consultant. He is alone with his problem and he must fight alone. Chipman says: "I have never heard it denied that in this general equipment, a large place ought in all conscience be given to obstetrics. And yet, speaking generally of our medical schools, *this very training in obstetrics is the weakest page in the curriculum*. Our academic vision has been blinded by the brilliancy of achievements in surgery. The glamour of the operating amphitheater has lured the student and captured his imagination." And it is no small wonder that he has little stomach for the watchful waiting of the lying-in room. I submit that it is a thousand pities that so much time is utterly wasted on the

benches of amphitheaters, watching with unseeing eyes the gyrations of the scalpel. How much more would it profit the student to employ this time in observing the phenomenon of birth under the direction of a master obstetrician. The need is for more practical training and clinical instruction in the art of midwifery, and this need can only be supplied in hospitals and dispensaries.

I think it is generally conceded that the out-patient service is a poor substitute for the dispensary and the hospital and in this respect most of our teaching institutions are woefully lacking, for the simple reason that they do not have adequate hospital accommodations. To send students into homes where filth abounds, unattended by an experienced clinician and with no more than a smattering of theory to sustain him, is a ghastly business and cannot be justified by lack of adequate hospital facilities. There is no more virtue in teaching obstetrics to a group of observers than in teaching operative surgery from the benches and we all know from experience what that means. There must be direct contact and individual responsibilities if the lessons are to be driven home, and above all it is essential that the student live for a time in an obstetric atmosphere. G. W. Theobald of London, England, says: "When I reflect on the care, skill, teamwork and money expended in the operating theaters of our land in patching up broken men and women, and then reflect on the inadequate training which allows men to kill and cripple women in their prime, women who are performing the act for which they were created; when I consider the sum total of misery which is daily mounting through bad obstetrics; when I realize that the country of Simpson, Lister, Smellie, and Hunter is no longer mentioned in the literature of obstetrics, I feel constrained to make a plea for radical changes in the attitude toward midwifery, and to hope that these changes will be made by the profession before unnecessary and ill-directed control is exerted by the state."

And from another source in England we read from the pen of Comyns Berkeley that: "The present maternal and fetal mortality and morbidity associated with pregnancy and childbirth will not be appreciably improved until the midwifery service of the country is more complete, and medical students are taught midwifery more efficiently. That in the efficient training and teaching of medical students in midwifery, the community, as opposed to the individual, is more directly and personally concerned than in that of any other subject in the medical curriculum. Not only is this so on the score of health, but also for economic reasons. The only place in which the practice and art of midwifery can be properly taught is in a maternity hospital or in the maternity wards of a general hospital. And that there are not sufficient beds available for this purpose." The responsibility for this discrepancy lies, says Berkeley, at the door

of the internists and general surgeons who have never realized until quite recently, the importance of midwifery to the nation, with the result that insufficient beds were allotted to the department of midwifery; too little time was provided for instruction and the facilities for teaching, laboratory and research work were inadequate. "Thus it came to pass that the ideas of medical students with respect to the importance of midwifery to the community were the result of a vicious circle." Indeed, it was not until 1869 that in England midwifery was included as a compulsory subject in the curriculum of medical students. And yet no less an authority than Dr. Fairbairn says that "in the efficient practice of midwifery is to be found the greatest example of preventive medicine in the medical curriculum."

In the report of the Committee on Maternal Welfare (1925) the statement is made that the services of the general practitioner are proportioned about as follows: Internal medicine, 50 per cent; obstetrics, 35 per cent; minor surgery, fractures, life insurance, etc., 15 per cent. A study of the curricula of our medical schools showed that in actual teaching hours the ratio of obstetrics to general surgery, exclusive of surgical specialties, was as 4 to 18. Clearly, then, there is cause for a revamping of the curriculum if the needs of the general practitioner are to be adequately provided.

Dean Emerson of the College of Medicine of the University of Indiana says: "It is the business of medical schools to prepare students for the first two years of the practice of medicine." It is presumed that with such an equipment the graduate will acquire added knowledge and skill to the end that he may assume larger responsibilities. Assuming that the premises of Dean Emerson are reasonable what, then, we ask, are likely to be the demands of the first two years of practice in relation to general surgery and obstetrics? A knowledge of surgical diagnosis and the ability to do minor surgery and to administer first aid in major surgical lesions would seem to be all that could reasonably be demanded of a young practitioner of medicine. But in the practice of obstetrics, there is no problem, however grave, that may not require the services of the neophyte in medicine. Placenta previa, eclampsia, ectopic pregnancy, ruptured uterus, contracted pelvis; these and many other obstetric problems may present themselves in the earliest years of practice and under conditions that admit of no opportunity to shift responsibilities. More than this it will be as incumbent upon the young practitioner, as upon the older and more experienced, to recognize the danger signals and to exercise the needed skill to avoid disaster.

And so I assume that it is indeed a reasonable request that the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons make to those who are empowered to regulate the curriculum in our medical schools, that the teaching of obstetrics be given

more equitable recognition, to the end that our graduates of medicine may be reasonably prepared to meet the demands of the general practice of medicine.

More than four hundred letters of inquiry were sent to the deans of medical schools all over the world, exclusive of the United States, and to a group of obstetricians representing the entire medical world. The response was most generous and courteous. I have appended an analysis of the replies and will here quote from some of them:

Professor R. W. Johnstone of the University of Edinburgh writes: "In my valedictory address to the Edinburgh Obstetrical Society last month I referred to this same subject and my complaint was exactly the same as yours; namely, that the time allotted to obstetrics in our present curriculum is relatively and absolutely too little." Johnstone finds no fault with the systematic teaching of obstetrics, but says: "When one considers the vital importance of practical obstetrics it is absurd that three months should be allotted to this subject and a similar period of time allotted to such other subjects as tuberculosis, diseases of the ear, nose and throat and even to diseases of the skin."

Mr. Herbert Spencer of London, England, writes that "An effort is being made in England to devote the same amount of time to obstetrics and gynecology as to medicine and general surgery." Beckwith Whitehouse of Birmingham, England, confirms this statement and says that in England the "importance of the subject is being recognized more and more each year."

Dr. Fletcher Shaw of Manchester University quotes an old teacher of his, Sir William Sinclair, "Students are taught surgery which they will not practice and later practice midwifery which they were not taught."

We learn from Professor N. S. Wales of the University of Sydney, Australia, that in the medical schools of Australia obstetrics does not share equally with general surgery and that in his opinion "it is not necessary, as a great deal of obstetric work is founded on surgical science and technic which are learned in surgical lectures and demonstrations." Again from Australia we hear from Professor Ch. M. Syd of the University of Adelaide that "The teaching of obstetrics in Australia has, until quite recently, been much neglected." Dr. H. Howitt writes: "In my active days the medical schools of Canada gave obstetrics (exclusive of gynecology) an equal number of teaching hours to that of general surgery. So, too, was it the case in England in my student days—not so today."

Professor Kedarnath Das of Calcutta, India, tells us that the majority of cases are attended by midwives and the practitioner is usually sent for in difficult cases. He says, "I feel very strongly that students of midwifery are denied their legitimate privilege of witnessing their professors of obstetrics performing obstetric operations, while they obtain the fullest advantage of observing surgical operations performed by their professors of surgery."

From Cardiff, Professor E. J. MacLean writes that in common with other teachers of obstetrics in Great Britain he is having considerable difficulty in securing what one might regard as even a moderate allocation of the curriculum for the teaching of obstetrics whether theoretical or practical. "I am convinced," says he, "that unless and until this wrong is righted there is but little hope of substantially reducing the puerperal mortality and morbidity rates which are truly regarded as a subject of world-wide concern."

Professor A. F. Hamilton of Byulla, Bombay, India, writes of the embarrassment of teaching obstetrics in India because of the caste and purdah systems in

vogue, women being reluctant to be attended by male doctors. Nevertheless, 1200 to 1400 cases are delivered annually and a considerable proportion of these are abnormal cases. Each student is required to conduct deliveries in 20 cases and is permitted to witness many scores of cases. "Our trouble here," says Professor Hamilton, "is to persuade pregnant women of the value of antenatal observation. They are so ignorant and apathetic and hence we still have far too many tragedies."

Dr. G. W. Theobald, Professor of Obstetrics and Gynecology at the Chulalongkorn University, Bangkok, Siam, has the following to say: "I very much regret that obstetrics does not share equally with general surgery in teaching hours. Basing its figures on those suggested by the Association of American Medical Colleges, the faculty have reduced the number of hours devoted to obstetrics, and would have liked to reduce them still further. At present the hours are divided as follows: pathology 647; medicine 1108; surgery 757; obstetrics and gynecology 402.

"It is rather interesting to reflect that in this country the greatest single cause of death is almost certainly puerperal sepsis. There are many more deaths as the result of childbirth than there are from cholera, typhoid, typhus, and plague put together. The maternal and infant deaths account for over one-third (probably nearly a half), of the total deaths in the country in any one year. Yet, in order to model itself as closely as possible on the American system, obstetrics, the most important subject in this country, is relegated to the least important place in the curriculum, and pathology is allowed half as many hours again, although not 10 per cent of the students will ever own a microscope.

"Sitting in far away Bangkok, by the side of the Klongs, in the sound of the Cremation Rockets, I have the feeling that logic and argument will offer but little appeal to our profession, and that the women will go on being butchered, until such time as a relatively trivial incident will somehow startle the public and cause the necessary changes to be made in a manner which may be unfortunate."

Professor de Ott of Leningrad sends greetings to our Association and tells us that in his school obstetrics shares equally with surgery in teaching hours. From 500 to 600 students annually receive instruction in his gynecologic institute.

J. Preston Maxwell, from the Peking Union Medical School, writes that "In no place in China does obstetrics share with general surgery the same number of teaching hours, and in most of the schools the obstetric teaching is in an infant condition. It must be remembered that obstetrics has had to make its way in this country against considerable odds due to prejudice and custom. It is now showing healthy signs of growth and all over the land quite apart from the medical schools, the training of midwives is in the air, and this is in the hands of the medical profession."

From Professor Robert Dolbey of Cairo we learn that "In the medical schools of Egypt obstetrics does not share equally with general surgery in teaching hours, but obstetrics and gynecology together do." He says, "We live under peculiar difficulties in Egypt, having the harem principles to contend with. It is impossible to institute an external maternity charity for male medical students. The only practice that our students get in obstetrics is in the hospital where, with great difficulty, we manage to persuade certain women to come for their confinements. This, however, has only resulted from twenty years of unremitting labor on the part of Dr. Dobbin. The net result, however, of the unfortunate prejudice against male doctors in the harem, is that we get a large number of cases of ruptured uteri and similar complications. There was no obstetric teaching in Egypt thirty years ago, when this school was revived; nor does there appear to have been any obstetric teaching since the beginning of the Moslem era, A.D. 700. As far as we can gather from a study of the mummies and of the medical papyri of dynastic

Egypt (dating to 3000 B.C.) the practice of obstetrics was deplorable. We have some mummies, even of royal families, in which death had evidently taken place in childbirth and no attempt made by cesarean section or other means to relieve these cases of obstructed labor. The harem principle, however, shows signs at last of giving way before the progress of Egypt in other directions, since the King showed the example of having English nurses and doctors for the Queen's babies."

From Buenos Aires Dr. Frank R. Pasman is authority for the statement that obstetrics shares equally with general surgery in teaching hours. The buildings and equipment of the Maternity Institute at Buenos Aires are unexcelled.

Professor Alberto Ramos of Buenos Aires is an ardent champion of the combination of obstetrics and gynecology in teaching institutions and in practice. The obstetricians of South America are waging the age-long conflict with the midwife and the general surgeon and it is gratifying to note that astonishing progress has been made in the development of modern maternities and well-organized departments of obstetrics and gynecology. Professor Ramos says, however, that their students are not sufficiently instructed in obstetrics; that the knowledge of the student at the time of graduation is no more than mediocre and their technical capacity almost nil. He is far from being capable and self-reliant for want of practical clinical experience. Indeed he is not sufficiently trained to appreciate his limitations. No less than three months of maternity service would reasonably equip the student for the responsibilities of a general practice says Dr. Ramos. In the Argentine the doctor is rapidly replacing the midwife in practice and is encouraged to refer his cases of dystocia to maternity clinics, for the dual purpose of better service to his patient and added instruction for himself.

In Sweden clinical obstetrics was introduced by Johan von Hoorn in 1662, but was not required as part of the curriculum until a century later. Essen Moller tells us that "Instruction did not attain its full efficiency until the year 1851." The students in the University of Lund devote four months to clinical obstetrics, living and breathing the atmosphere of the clinic. Each student will have personally conducted an average number of 38 to 40 labors, 1 to 2 forceps, and 1 to 2 abortions. Some will have performed versions, manual delivery of the placenta and like maneuvers. "It is significant," says Essen Moller, "that, though there have been many changes in the curriculum of the university, no alteration has been made in the time-honored arrangement of the obstetric and gynecologic teaching." This he ascribes to the practical work under the teachers' control and the fact that the students develop self-reliance and a sense of responsibility.

Stockholm presents one of the most comprehensive systems for the teaching of obstetrics. Nowhere in the world does it appear that the student is given greater opportunities for practical instruction. Here the first obstetric clinic was established in Sweden by Johan von Hoorn in 1662.

Professor Kr. Brandt of Oslo, Norway, reports double the time allotted to general surgery as to obstetrics and gynecology combined. He opines that the combined chairs of obstetrics and gynecology is the only right policy and adds that this policy is pursued throughout Finland, Germany, and Austria and is fast becoming so in France and Great Britain.

Professor S. A. Gammeltoft of Copenhagen expresses the opinion that "our teaching (Denmark) regarding the theoretical side is full up to date, but the practical side ought to be better; one month's practical work is not enough."

Professor D'Rossier of Lausanne, Switzerland, writes that obstetrics has almost the same number of hours as has surgery and internal medicine.

Professor P. C. T. Van der Hoeven of Leiden, Holland, is now devoting double the time to the teaching of obstetrics as was given forty years ago, but general surgery still holds nearly double the number of teaching hours.

Professor Cesare Decio of the University of Sienna, Italy, writes that "In the medical schools of Italy generally the teaching of obstetrics is given about the same time as is surgery, the proportion being 5 to 6. The teaching of obstetrics began in this institution in 1762 with Jacopo Bartolomei as head of the Department of Obstetrics, Anatomy and Surgery and the surgeon remained in control of obstetrics until 1859."

Professor Henri Vignes of Paris writes: "The French system of teaching is not bad in spite of all criticism to the contrary. The privileges we grant our students are excellent. Our great surgeons and doctors are neither inferior nor superior to those of foreign lands. Our courses are long and numerous. For example one begins his studies at eighteen years of age, is an externe at twenty, an interne at twenty-three, a doctor at twenty-seven, chief of staff at twenty-nine to thirty, hospital doctor without service at thirty-three. He completes his training at thirty-five, may obtain a service by forty-one and may, but may not, become a professor at fifty to fifty-five, 'long after the flame of youth is extinct.' There are 5000 students in Paris and it becomes necessary to give many of the students their clinical training outside the University clinic. This need is supplied by eleven or twelve hospitals in Paris, where lectures and demonstrations are given every morning throughout the academic year of nine months. Here surgery is allotted double the hours as obstetrics. One or more times each week the student passes the day or night in the maternity wards. The theory is acquired from books and conferences. These are for the purpose of preparing the student for his examinations rather than for the practice of medicine."

Professor A. Martin of Berlin says: "It is very meritorious that you are giving this subject consideration in your Association. Obstetrics even today is not given the recognition in Germany that we instructors desire; this from the viewpoint of teacher and practitioner. We are not unmindful of the great difficulties involved in arranging a satisfactory curriculum for the study of medicine, due to the marvelous development of the medical science. In Germany the student is required to deliver but 4 cases which is manifestly too small a number and we are endeavoring to bring about a change whereby the student will be required to devote one month to the maternity wards and it is expected that this will be done."

Professor L. Fraenkel of Breslau, an honorary member of our Association, writes as follows: "Of late years surgery is encroaching on the field of obstetrics and some of the work formerly considered part of obstetrics is falling into the hands of the surgeons. Slightly more time is allotted to surgery than to gynecology and obstetrics; the proportion being 6 to 5. The ratio of obstetrics to gynecology is about 3 to 2. Besides, we require that every semester the students spend all their hours in the clinic and live there for a certain fixed period. During this time they are present at all deliveries and are instructed by the assistants and permitted to examine the patients. This is in addition to their other lectures and the clinic time devoted to obstetrics and is no longer than for surgery."

Professor Otto von Franke of Bonn finds it difficult to give the exact number of academic hours devoted to the teaching of obstetrics because, as he says, obstetrics is combined with gynecology throughout all Germany; that it always has been and he hopes it always will be. He expresses the criticism that in Germany too much emphasis is placed upon the scientific phases of the subject and not enough on the practical. Obstetrics and gynecology combined share nearly equally with general surgery.

Professor Pankow of Freiburg presents an outline of a very comprehensive schedule in obstetrics and it is apparent that all possible emphasis is placed upon practical clinical instruction. It is of interest, however, to note that a minimum

of 4 deliveries is required of the student, though some students will deliver 20 to 30 cases. Only two to three days are required in the maternity wards. The bulk of the clinical instruction is given in clinics conducted by the head of the department. Professor Pankow says that because of the growing importance of the problem of abortions in Germany, two or three students are required to attend every case. Regret is expressed that the students are not required to personally supervise more deliveries.

Professor H. Eymmer of Innsbruck, says obstetrics in Austria is not on an equality with general surgery in number of teaching hours; about double the time is devoted to surgery.

Dr. Bernhard Aschner of Vienna feels that obstetrics, for the past 100 years, has been placed upon an entirely wrong basis. He argues that the teaching of obstetrics should be simplified and the hours shortened; that too much time is allotted to such subjects as embryology and histology, subjects that are superfluous to the general practitioner and only of interest to the scientific specialist. He says he is aware that the majority of professors in Austria and Germany would not subscribe to this criticism, but contends that his principles have proved themselves in private practice and voices the hope that his American colleagues will share in his views.

Dean Martin of McGill University says: "I feel very strongly that not enough time is given as a rule to obstetrics in most of the schools. Certainly it deserves, in combination with pediatrics, at least as much time as surgery. In our schools we have, I believe, as good an obstetrical service as anywhere in the world for the student body."

Professor W. B. Hendry of Toronto University is "not altogether satisfied with the small amount of time which is detailed to obstetrics in comparison with the number of hours of clinical instruction a student gets in surgery." The proportion, as stated by Doctor Cleland, is 65 lectures in obstetrics; 120 lectures in surgery; 85 clinical hours in obstetrics; 430 clinical hours in surgery.

Dr. J. Clarence Webster, my former chief and now Emeritus Professor of Obstetrics and Gynecology of Rush Medical College, says:

"Very few medical schools in the United States and Canada are in a position to give adequate training in obstetrics to their students. Consequently, in private practice childbed mortality continues to be higher than it should be, and morbid pelvic conditions produced form a large percentage of the diseased conditions from which women suffer.

"Theoretic instruction is excellent in many institutions. The need is for better clinical instruction. This may be obtained in two ways. Teaching Maternities, in which senior students may reside and conduct cases of labor under supervision, as in the famous Dublin Rotunda, are necessary.

"Outdoor district care of obstetric cases, also under supervision, should be provided in all schools. This method of instruction has long been a feature of the Scottish schools, and has been largely responsible for the high standard of practice among their graduates."

Dr. Fred C. Zapffe, Secretary of the Association of American Medical Colleges, writes in a personal communication:

"I am very glad that your Association is taking an interest in the teaching of obstetrics. For a number of years I have been trying to interest other associations in this question, but so far have failed in my efforts.

"As to the teaching of obstetrics: During an experience of twenty-three years of visiting medical schools I have gained certain impressions that have never varied, but have been multiplied.

"As a rule, obstetrics and gynecology are in one department of which a gynecologist is the head, as there are only a few obstetricians, and even if there were more, the gynecologist would insist on the headship of the department, or a separate department. Therefore, the bulk of the hours allotted to the combined department are taken by the gynecologist.

"I find that in many schools there is very inadequate provision made for training students in actual delivery work. There are very few well organized out-patient departments for obstetric teaching and hospital teaching is, with few exceptions, not adequate obstetric teaching. Students observe; they do not 'do.'

"I have been especially interested in this question because I have always been convinced that the teaching of obstetrics is wholly inadequate in most medical schools. I am convinced that obstetrics should be a separate department, in charge of an obstetrician, and that out-patient maternity work should be the backbone of the teaching. In an editorial published in the *Bulletin* of this Association, July, 1927, I advocated the abolition of the department of surgery in undergraduate medical schools and provision for a department of medicine and a department of obstetrics. In the October, 1927, issue of the *Bulletin* I published a cooperative curriculum in which I gave to obstetrics 140 teaching hours and four weeks of maternity work; more hours than I gave to surgery (didactic) and nearly as many as I gave to medicine (didactic)!

"I am not an obstetrician; I do not teach obstetrics, but I am firmly convinced that undergraduate medical students should have more obstetric experience.

"It is impossible to give to each fundamental subject in the curriculum the time it really should have; but training in fundamentals can be given in comparatively few hours if we stop spoon-feeding our students, attempt to direct, rather than to lead, them, and give them opportunity to do some thinking for themselves.

"It is necessary for every teacher in the medical school to recast his courses; to change his methods of teaching; to stop being didactic; to direct; assist and give to the student a little knowledge which will stick and make it possible for him to get more on his own. On inquiry I have heard it said over and over, that assignment of so many pages of a standard textbook for a quiz or a recitation (the same) is the rule. That is also true of obstetrics. You cannot teach all of obstetrics in an undergraduate course, even if you devoted a whole year to it, but you can teach the very much needed fundamentals and when expert help is needed, and stimulate some students to develop themselves further in that specialty.

"I may be in error, but I feel that what the student needs in obstetrics is more prenatal work; more delivery experience, in addition to training in making obstetric examinations and manikin work, with a very short course in the usual didactics. All rare and unusual things should be taboo. And all of this can be done in 140 hours and four weeks of maternity work.

"You and your associates have my good wishes in your attempt to do something for obstetrics, but, please remember, that there must be two courses of training: One for the undergraduate medical student who must practice obstetrics in the home, on the farm, or in a hospital, and the other for him who wishes to become an expert, a specialist.

"I will be very grateful to you for word as to what action, if any, your Association will take at the September meeting. Further, I want to assure you that I am very much in accord with special societies taking on the job of considering their teaching function; in fact, it is a duty for teachers to do that in their special societies. Heretofore, regard has been had only to the development of the specialty; but, inasmuch as there are not associations of teachers of this and that, nor of all teachers, it behooves the teachers who are members of special societies

representing their branch, to discuss teaching because only in that way can we even hope to solve the problem."

The theoretic teaching of obstetrics in America may be said to be fairly up to the standard set by other nations, but the facilities for clinical observation are woefully lacking in many of our institutions. Herein lies the explanation for the disgraceful showing we are making in the practice of obstetrics as compared with other nations. Baker tells us that the maternal mortality is one-third higher in the United States than in England and Wales and more than twice as high as in Denmark, Italy, Japan, the Netherlands, Sweden, and New Zealand. Dr. Brooke Bland is my authority for the statement that the United States ranks highest in maternal mortality among the 21 leading nations; that we have consistently maintained a rate in excess of six per one thousand from 1915 to the present time. And this from a nation that so blatantly boasts of its efficiency and of the magnitude of its institutions. In this connection we recall the fate of the dinosaur which from an architectural point of view was the largest and most beautiful of animal creations, but its body grew so large and its head so small it could not maintain its existence.

All will agree that the number of clinical maternity beds in most of our teaching hospitals is entirely inadequate for the proper training of students. But there must be more than clinical facilities provided; there must be time for the student to use them; time in which to live in an obstetric atmosphere. This cannot be done without a very radical pruning process on the part of those charged with the responsibility of portioning out the students' time. The curricula of our medical schools and of our premedical institutions are literally jammed with irrelevant subjects which have no bearing whatsoever on the practice of medicine. Far too much emphasis is placed upon clinical subjects which might better be shifted to graduate schools. Indeed, it would seem that between the theorizing of the Ph.D.'s of our faculties and the gormandizing of the general surgeons, the obstetrician has done well to maintain a semblance of individuality.

Permit me to submit to you the following propositions for your consideration:

1. If it is the business of our undergraduate medical schools to prepare students for the general practice of medicine, it follows that obstetrics should have a large place in the curriculum.

2. In the general practice of medicine obstetrics far exceeds that of general surgery in importance and is only second to that of internal medicine. Such should be the relative positions of these subjects in the curricula of our schools.

3. The demand in numbers of academic hours upon our medical students is already excessive and should be reduced. To provide more

time for clinical instruction in obstetrics, without adding to the burden of the student, the didactic teaching in obstetrics, as well as in all clinical subjects, might well be restricted to the fundamentals; much of the teaching in general surgery should be shifted to graduate schools and far less emphasis should be placed upon minor specialties.

4. The need is for more practical instruction in obstetrics and this can only be attained in hospitals and dispensaries. The service in the out-patient department, as commonly conducted in our institutions, is no adequate substitute for the dispensary and the hospital.

5. Not less than one month should be devoted exclusively to a maternity service. In this service the student should deliver a minimum of 20 cases, under the direction of trained clinicians; and the importance of prenatal supervision should be stressed.

6. Everywhere throughout the world it is apparent that the teaching of obstetrics is receiving more and more consideration. The medical schools of the United States are lagging far behind most schools of the world in practical instruction and this for lack of adequate clinical facilities and the time to devote to it. There must be a revamping of the entire curricula in our schools to the end that our students may be better prepared to meet the demands of the general practice of medicine.

7. The maternal morbidity and mortality, which in the United States has not decreased in the last fifteen years and is today the highest of the twenty-one leading nations, is chargeable to educational defects and will not be materially reduced until our institutions provide more adequate clinical facilities.

8. From my correspondence (see appended résumé)* I learn that the countries in which part or all of the institutions give obstetrics and gynecology combined, equal recognition with general surgery are Russia, Poland, Ecuador and Argentina; that in Germany, France, Norway, Sweden, Holland, Italy and Switzerland the allotment is nearly equal; while England, Scotland, Wales, Canada, Australia, Egypt, Finland, India, Cuba, Czechoslovakia, Chile, Peru, Brazil, Austria, Hungary, Mexico, China, Siam and Haiti give much more time to surgery than to obstetrics and gynecology, the proportion being about 2 to 1. However, it is of interest to note that in none of these countries is surgery given so large a proportion of the teaching hours as in the United States where the ratio of surgery to obstetrics is in the neighborhood of $4\frac{1}{2}$ to 1.

9. The American Association of Obstetricians, Gynecologists, and Abdominal Surgeons respectfully petition and urge upon those who are in official command of the situation to remedy this state of affairs.

*For lack of space the details of Dr. Findley's questionnaire addressed to deans of medical schools and professors of obstetrics, can only be included in the Association's current volume of transactions and in the author's reprints.

We ask this with no desire to unduly exalt ourselves or our specialty, but for the purpose of preparing our students for the responsibilities of their chosen profession.

And Israel spoke unto Rehoboam saying: "Thy father made our yoke grievous; now therefore, make thou the grievous service of thy fathers, and his heavy yoke which he put upon us, lighter, and we will serve thee."