

**THE PRIMIPARA BELONGS TO THE
EXPERT AND THE HOSPITAL: THE
MULTIPARA TO THE FAMILY DOCTOR
AND THE HOME.***

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THE intent of this brief presentment is to propound rather than to prove the proposition set forth in its title.

The ratio of a first labor to a subsequent labor is that of the untried to the tried; of speculation to proof; of major to minor.

The professional conduct of a first labor throughout, must be likened to the execution of a major surgical operation; otherwise we cannot justify the elaborate operating-room technique of our hospital delivery rooms; and our academic insistence on timely observation controls, relief from pain and shock, prophylaxis against infection and blood loss, and solution of mechanical problems as they arrive, becomes an empty word.

I venture to reiterate that the essential surgical operation of obstetrics is the consecutive management of a first labor *at term* with a view to minimizing the instant and ultimate danger to health and efficiency of mother and child. It is an operation consuming in its entirety an indeterminate period of time, from three to thirty hours, and conducted in the full glare of acute family solicitude. The operator working under the strain of broken sleep and routine, striving by judicious suggestion or cautiously adjusted dosage of anal-

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gesic, amnesic, or anæsthetic medication to bridge and counter the risks of shock and overstrain, tuning all direct investigation and corrective manipulation to the progress of events, passing judgment at intervals on the physical condition of two enduring mortals—all under preparation and performance of an unassailable technique of asepsis and including all resources of incision surgery from perineotomy to Cæsarian section—truly the obstetrician must be an operator of rare patience and hardihood to live up to his obligations! All honor to the amazing versatility and skill of the general surgeon of high or low degree! But, he will not and cannot undertake the long operation of labor. The gap to be filled in the story of success must be made good by the trained gynecological surgeon who is *willing to personally conduct labor cases*. The gynecologist of the old school is still hampered by the midwife traditions. The obstetrician of the new school cannot be a mere superior midwife to the wealthy—he must have the experience of an abdominal and pelvic surgeon in order to carry an ever-present full comprehension of all problems of prevention and correction. The consultant who performs only last resort obstetric surgery and advises in the diagnosis and management of post partum sepsis will soon lose his perspective, if he does not, from time to time, assume the consecutive guidance of a complicated labor. He must look upon a last resort summons to an ill-managed labor case to be as futilely absurd as the calling in of an expert surgeon to make good in the midst of an amateur laparotomy. He must have all aspects of pregnancy, labor, and the surgical pathology of the female pelvic organs in fresh review as long as he is willing and able to fight in the actual battle for advance.

The executed progress of preventive medicine and of prophylactic and curative surgery in the past twenty years has been epoch-making: obstetrics as applied to the actual conservation of woman's efficiency in the mass and in the individual is far behind in the ultimatum of its responsibilities.

Woman in this country is confidently demanding and expecting a direct individual expression of opinion in public affairs. She appears to be a party to a clear *cry for relief* from the *pains* traditionally incident to maternity, but thus far she shows no concrete interest in recognizing or demanding high grade guardianship again the real *perils* of labor. A primipara can be inveigled into a maternity hospital for economic reasons, but not on the frank plea of prophylaxis—except in the presence of major imminent catastrophe. The prospective mother instinctively safeguards her psychic balance by closing her

eyes to any thought of a disastrous labor and "so mote it be." She seeks a nurse who is well spoken of as a kindly soul with experience; in the higher walks, she opens conference with a "family doctor," who graciously agrees to take care of her. At this point enters marplot. Tradition says that Experienced Nurse is all that should be necessary to actually supervise a normal function and if Family Doctor is good enough to promise to be present in conjunction with Experienced Nurse, he will be able to fulfill any function required, and, in addition, has at his command *all* the resources of professional knowledge and skill requisite for flying in the face of Providence, if Providence proves unkind; for Family Doctor makes a specialty of confinements and has attended hundreds of such cases and never ("hardly ever") lost one. Moreover, up-to-date Tradition says that Family Doctor will "use antiseptic precautions, put in stitches," make visits at intervals for several weeks after the labor, and not "add" anything to his nominal contract fee unless he "uses instruments." Of course Tradition (and the courts) also admits that from \$15 to \$50 is an ample fee any physician ought to expect for his "trouble" in losing some sleep and wasting some hours because Experienced Nurse did not guess exactly the proper opportune time to call him to the case. In short, the fee for anything undertaken in relation to the management of labor is traditionally gauged to a minor responsibility and is not even measured in terms of the practitioner's ordinary stipend for time and visits in his other professional work. Of course Tradition allows for those extraordinary situations where husband is notoriously wealthy and submits gracefully to what everyone knows to be an overcharge, or the contribution of a gratuity—to indicate his appreciation of the grace of a desired presence.

The general medical practitioner does not admit in form that his obstetric work in family attendance is graded down to midwife tactics rather than up to surgical technique; yet under criticism, he admits, in fact, that honored conscience without honorable compensation is his single brake against sliding into at least sins of omission in this class of work. After the wane of his excited student enthusiasm, he finds that the exactions of time and the pursuit of livelihood, promote a disposition to examine his parturient patients chiefly with a view to planning his other work so that he be on the spot when the child arrives, and too often he fills the bill as a wonder worker, by terminating the labor by forceps or version, when the only undebatable justification is the saving of his own time, under cover of complacently meeting the clamor of the family for him to "do something" to rescue the pa-

tient from her distressful state. Far be it from us to represent that no tolerable obstetric work is executed by the general practitioner, but we flatly maintain that extant knowledge of the efficient management of pregnancy and labor as exhibited in the literature and in the practical application of this knowledge at teaching hospitals, is far in advance of the suppositious professional care in childbirth commonly available. The investigations carried on thus far by the authorities in charge of the execution of the New York State workman's compensation laws have demonstrated a very low grade average surgical treatment of accident wounds as compared with results attained under similar conditions in Europe. A comment may reasonably be made that if the science and practice of surgery (in town and country) were actually as far apart to-day as the science and practice of obstetrics, the barber-surgeon would still have as definite standing in the community as has the midwife. Much moan has been made even in past days over the sad spectacle of the "man midwife"; but his "meddlesome midwifery" still trails a dark shadow of damaging indiscretions across our view.

The error in the education of the obstetrician in our medical colleges is the same as has been the error in the education of the surgeon. The medical school graduate cannot be a competent surgeon, neither can he be a competent obstetrician. No amount of didactic instruction even by capable teachers can make him either a surgeon or an expert obstetrician. Natural interest added to a patient apprenticeship may promote him later—but mere repetition of presence at births is a poor index of merit to carry the actual responsibilities of managing a difficult labor.

The writer contends that the first grand obvious division between major and minor surgical obstetrical cases is a division between first labors and subsequent labors. If major surgery belongs to the trained surgeon and the hospital, and minor emergency surgery to the competent general practitioner—then also the primipara belongs to the expert obstetrician in the surgical delivery-room, and the tested multipara *may* make a reasonable choice of delivery at home on a clean bed with no vaginal examinations. If the normal family, to maintain the present population, presents at least three children, certainly every primigravida is entitled to be converted by her first labor into an unterrified, undamaged, and competent multipara.

This assembly must unreservedly admit that the present standard of executed obstetric practice does not provide evident progress toward such an ultimatum.

Can we expect progress in this matter other than by actually initiating two positive moves?

1st. The prohibition by the State of attendance by a midwife on a primipara.

2d. Willing reference of primiparæ to experts and hospitals by general practitioners in the same spirit as serious general surgical operation cases are so referred.

members each, and these sections are so related geographically by distance, railroad and automobile, as to permit the instructor to reach with ease one section on each day of the week, returning on Friday or Saturday evening to that section and that place from which he begins his weekly cycle on the following Monday.

We paid the two teachers employed in North Carolina last summer \$500 per month, inclusive of expenses; so that the teacher cleared something over \$400 per month. The assessment of the members of the class should be sufficient to raise, in addition to the amount which it is intended to pay the teacher, between \$200 and \$300 for incidental expenses, such as laboratory material and the printing of the lectures. I have here with me for those who would like to see them, printed copies of the lectures given in North Carolina last year.

The length of the course will depend (1) on the subject of the course; (2) the amount of assessment; and (3) the mental appetite of the class. In our work last summer, we gave one course in pediatrics of sixteen weeks and another course of thirteen weeks. Each section attended a three-hour weekly meeting for lecture and clinic. Each section and each member of the class, therefore, received from thirty-nine to forty-eight hours of instruction. The principal phase of pediatrics taught was the nutritional disturbances of infancy and childhood.

To obtain a sufficient amount of suitable clinical material must be admitted to be the greatest difficulty in the way of the success of this scheme. Here I think the principal factor in securing clinical material will be found to be the personality of the teacher, his ability to appeal to and influence each member of the section to realize his individual responsibility, and to put himself to some slight inconvenience in the way of securing his pro rata part of suitable material.

Subjects of medicine susceptible to this scheme of instruction are those in which the general practitioners have a common interest, as, for example, physical diagnosis, diseases of children, minor surgery, laboratory work, obstetrics, etc.

Before this section, it is pertinent to say a few words on the adaptability of this plan to obstetrics. Dr. J. Whitridge Williams told me a short time ago that the principal obstetrical subjects that needed renewed emphasis with the general practitioners were: the value of abdominal palpitation and rectal examinations as substitutes for the heretofore routine vagi-

nal examinations. Dr. Williams thought that twelve hours class work would be sufficient to cover this most needed obstetrical post-graduate work among general practitioners. You can understand from what I have said that a twelve-hour course would require four weeks time of an instructor, the instructor meeting five or six sections a week, the sections ranging from eight to sixteen members, in a three-hour lecture and clinic. The cost of such a course would be in the neighborhood of \$500 or \$600, that is, a per capita cost for the class of from \$6 to \$8.

A questionnaire sent to the members of the two classes in North Carolina last summer on the completion of the courses in pediatrics, which questionnaire they were asked to fill out and return unsigned, shows the following: Average attendance on lectures and clinics, 76 per cent. of class; lectures were excellent in the opinion of 52 per cent. of those answering the question, good in the opinion of 42 per cent., fair in the opinion of 4 per cent., poor in the opinion of 2 per cent.; clinics were excellent in the opinion of 25 per cent., good in the opinion of 42 per cent., fair in the opinion of 22 per cent., passable in the opinion of 4 per cent., poor in the opinion of 4 per cent. of those answering the questions. Of one hundred and twenty-two answering the question as to whether they got the worth of their money and time out of the course: one hundred and seven said "Yes," eight said "No," seven were indefinite. Of one hundred and twenty-two answering the question as to whether they would take a similar course on some other subject: eighty-two said "Yes," eight said "No," thirty-two were indefinite.

*Discussion on papers by Drs. Slemons, King, Pomeroy, Rankin and Markoe:**

DR. EDWARD E. MONTGOMERY, Philadelphia: The papers read this morning are all of deep interest and I feel well repaid for my visit to Utica.

In 1880 one of my colleagues in the Philadelphia Hospital was brought to trial before the Board of Guardians for delivering a woman in the presence of a class of students; it was a forceps delivery. He came very near losing his place for demonstrating to students knowledge which was of the greatest importance to them and to their future patients. As a gynecologist I am naturally interested in the presentation made in the last paper. There has been a tendency on the part of obstetricians and surgeons to make a predatory invasion of the field of the gynecologist and attempt to squeeze him out. The work originated by

* For Dr. Markoe's paper see May issue, page 214.

gynecologists has been of untold benefit to both the obstetrician and surgeon as it has afforded each of them light and increased knowledge in their respective departments. In schools where men give from one half to the whole of their time to teaching, it may be advisable from an economic standpoint to combine these departments. It is a question with me, however, whether men will not give the particular department in which most interested the greatest attention, and of course the other will suffer. Also when a doctor's work is confined entirely to hospital service he loses the viewpoint which men engaged in general practice get. In the poor and slum districts of Philadelphia men are frequently called to see patients who have become infected during labor. The consultant is impressed with the fact that he must do something to satisfy those interested and will curet the patient for the purpose of removing retained products: within the next twenty-four hours if the patient has an elevation of temperature there is another consultant called in who again curets to give the idea that he is doing something that was overlooked by the preceding man. With the patient in the hospital we can control matters and keep out solicitous friends who would interfere with the orders of the consultant. It is for these reasons, it seems to me, that it is better that a teacher should do private as well as public work in order that he may be better able to direct and advise his students in difficult cases. I agree with your Chairman, Dr. Dickinson, that the subject could not be presented in a more able manner than by the gentleman who read the paper.

In line with the work so ably outlined by Dr. Rankin I would like to speak of something that is done by the faculty of Jefferson College in the different sections of the State of Pennsylvania. We have four branches of the alumni and members of the faculty have been going to their meetings once or twice a year to hold all-day clinics. To these clinics all the members of the profession in the adjoining counties are invited so that the attendance at a clinic is usually between 75 and 150 men. Such clinics have been held at Harrisburg, York, Altoona, Scranton, Allentown and Reading. Personally I have operated at such clinics, doing from three to six abdominal operations at the various places. The attendance has always demonstrated the appreciation of the profession in the vicinity of the clinics.

DR. HOWARD C. TAYLOR, New York City: We had a discussion in New York some years ago on the equipment of the specialist, for example, of the man who wishes to become a gynecologist. As we have been told here today, in order to do gynecology a man must

know obstetrics, otherwise he will not properly appreciate his work in gynecology. He must have had some experience as a general practitioner; he must have had a wide experience in general surgery before taking up a surgical specialty; he must have had special training in kidney and bladder examination; he must be trained in pathology, etc.

There are few men who have all these opportunities, and fewer who have the time to become proficient in all of these branches. He would be an old man about ready to retire before he was ready to be a specialist. We must accept, therefore, something short of the ideal. I never became an obstetrician, but I try to do gynecological surgery.

In regard to the association of gynecology and obstetrics in medical schools, I agree perfectly that the two chairs are closely related, and I can imagine no more ideal condition than the one described by Dr. Slemons, where a man is working on the full time basis, devoting himself to the teaching of the two subjects which are so closely associated with each other. In large cities a man covering the two chairs of obstetrics and gynecology, is forced necessarily, if he is not on a full-time basis, to have a large practice, which would take a great deal of his time and energy. In my opinion it is somewhat doubtful whether the two chairs could be covered so well in a large city as in a smaller place.

One of the papers which appealed to me strongly was the question of post-graduate work by traveling teachers. This paper was not only admirable, but the ideas set forth in it were splendid. There is great opportunity in the future for spreading post-graduate knowledge along these lines.

DR. A. B. MILLER, Syracuse: I have been very much interested in these papers this morning, though a portion of them is foreign to my line of practice. The only way in which I can reconcile it is as one of the state medical examiners I am reviewing the papers of graduates in obstetrics and gynecology. In that capacity it has given me the greatest pleasure to know that in our medical colleges these subjects are being taught today in a way much more comprehensive to the student than they were in the past, and that certainly from the younger practitioners we may expect much. That, of course, we did not get in the early teaching so lucid a description and demonstration as given us by Dr. Markoe. I have listened to him with a great deal of interest and he has simplified the methods of teaching obstetrics so thoroughly that it seems as if every one present must have a vision of the process of delivery that they are unable to get from their textbooks or from didactic work. I regret he was unable to complete his paper, as it was

educational to the general practitioner of which this body is largely made up. All of the papers have been extremely interesting; they must be profitable to the men who have been looking for aid and have been thinking along these lines. Time will not permit me to go into a discussion of all of them.

I was particularly interested in the paper of Dr. King as to the method of teaching, and I believe he has said something to us this morning that we will carry away with a great deal of profit, and shall look for his paper in the transactions. In connection with the method of traveling and teaching, as has been stated, I can see how much difficulty would be encountered in finding sufficient material to teach intelligently. All of us have in mind the possibility of men who are practicing medicine in communities remote from large centers feeling so satisfied with their own results that they are not going to be able to grasp the excellent method which has been suggested. It is so easy for us to become satisfied with our own results and with our own method, that we are very liable to forget or to overlook or to depreciate the teachings which may come to us from our superiors. We practice for a long time without serious consequences and we attribute the good results to our own ability and scientific attention rather than to the fact that we have been fortunate in meeting with no serious complications. The man who is trained in gynecology and surgery from constant teaching and daily application of thought and reading, must be one who is better qualified, better equipped, and will continue to do better work than the man that engages in general practice, alone. The general practitioner has to be a specialist, so to speak, in all departments, and if by the method suggested he can only be given the crumbs it may aid him in time of need, and it is more than marvelous how the general practitioner handles cases as well as he does. It is appalling to think of the mortality of obstetrical work in our hospitals where we have such superior advantages. This, I believe, will be eliminated largely, and the mortality in general practice will also be very much reduced. In the examination of papers we find that men are becoming thoroughly convinced that there is something in asepsis; and if practiced as well in the home as in the hospital, they will do better work than they have been doing.

I thought Dr. Markoe was going to leave out the question of the use of bichloride of mercury. I am a little sensitive about that, but he gave us the satisfaction by saying that it formed an albuminate and did not do much, if any, good. I am a strong advocate of asepsis and cleanliness, believing harm can come from the application sometimes of strong solutions, when in the use

of these solutions we think we are getting something which we are not getting.

If gynecology because of its association with obstetrics can do what has been claimed by the author of the paper, by the man who is paid for teaching obstetrics and gynecology, I have no doubt great good can come from it. I believe, however, as a rule, that the gynecologist is not going to become an obstetrician. I can see that as far as his association with a college as teacher is concerned much may be gained by it; time might be saved in teaching; but many of the things taught in medical colleges will be eliminated as time goes on, and the term will have to be increased from four to five years. There is not sufficient time to teach these scientific subjects which are so material—obstetrics, surgery, gynecology and medicine. I believe in that connection the gynecologist is not going to be able, unless he is a paid man in connection with his department, to look after his obstetrical patients with the care and thoroughness and satisfaction that he should. As Dr. Montgomery has pointed out, the advance of the abdominal surgeon is due largely to what has been taught and what has been learned from the early experiences and observations and developments of the gynecologist.

DR. ROSS MCPHERSON, New York City: The section is to be congratulated on having had such a remarkable set of papers. But to be a good discussor, it is said that one should have something with which to find fault, and accordingly in the first place, I object to the figures of Dr. De Lee and Dr. Williams which state that the obstetrical mortality of later years has not improved. I am perfectly familiar with the figures, and I know they apparently show such results, but I do not approve of the method by which the statistics were obtained. I know the mortality and morbidity in obstetrics has very much improved in New York in the last decade. I believe the general tendency is improving, in fact, I am sure of it. The reason why I say that is this: I have been at the New York Lying-In Hospital for nearly fifteen years. When I was first on the staff we used to have every day one or more frightful cases brought into the hospital, the legs of the fetus torn off, or with a head left in the uterus, the vagina and rectum being one cloaca, with every kind of complication one can think of. These cases have been gradually reduced in number to one a week, or two or three times a month, until nowadays it is practically impossible to get a case of this sort to exhibit to doctors. We believe that is not because we are not getting the cases and somebody else is, for I have asked other men whether they were getting such cases and they have said no. I practically never see a case in consultation now

such as I saw years ago where six or seven men had applied forceps and pulled on them in order to extract the child. We suppose that the present generation of physicians are being benefited by the teaching which they received eight or ten years ago; they are now beginning to do the work, and to do better work, and the men who did the bad work have gotten out or are getting out of obstetrics altogether. In other words, the teaching which we have done has brought men forward who are doing work along the line of three essential things—antepartum examination or prenatal care, asepsis, and non-meddlesome interference in labor, and the puerperium, which are the cardinal factors for handling cases well.

There is a good deal being said about prenatal care at the present time. Everybody who is teaching obstetrics has been doing good antepartum work, which is nothing but prenatal care. Every one who makes a business of doing special work in obstetrics is giving particular attention to prenatal care. It is of the greatest importance, but I do not think that we are giving enough attention to what the word prenatal care means. It does not mean having a lot of people see patients and make card indexes and not accomplish anything. It means having these patients seen by physicians who judge of impending complications. It makes mighty little difference in the result whether these patients are visited and asked social questions, etc., by so-called trained investigators; what should be done is to have the blood pressure taken, the pelvis carefully measured, the position of the child determined, and attention paid to proper diet and hygiene. All these things, when carefully attended to, will do more good in regard to the fetal mortality than any other one thing we may do.

In regard to Dr. King's paper, I enjoyed everything he said. If every member here will read over that paper when it is published, and read it five or six times, he will get a great deal of benefit from it as they do from anything that Dr. King writes. I enjoyed it very much.

The paper of Dr. Pomeroy seems to be a little pessimistic. I am not very pessimistic about these things. I think everything is going along properly; I think we are putting obstetrics on the basis where it belongs; it is being put there very rapidly, and I think the doctors are largely to blame for the bad care that the public gets. The public is demanding better care, and pretty soon they will demand it all the time and in every case; the doctors do not give the care, thought and attention that they should to these cases under discussion

because they do not like the work, and are not sufficiently well remunerated, but they feel they have got to do this work in order to build up a practice. This is a great mistake.

I have been much interested in traveling post-graduate instruction. It has offered a new thought to me, and I think it is something we ought to take up seriously.

In regard to the last paper, the paper of Dr. Slemons, whether the gynecologist should be an obstetrician or the obstetrician become a gynecologist, no one said that both ought to be trained as surgeons. That covers the whole thing. If a man is trained as a general surgeon, he may be called later to do obstetrics or gynecology as a specialty if he pleases. It certainly seems to me that the obstetrician can do better work if he is a surgeon, or is trained as a surgeon, than if he devotes his attention to the gynecological part of the problem entirely. I certainly see no reason why gynecologists should not be better gynecologists because they know obstetrics, but I do not believe any persons should attempt to do either as a specialist unless he is competent as a general surgeon in the first place. If he chooses to direct his attention to the center of the body later, he is entitled to do so.

DR. IRVING W. POTTER, Buffalo: These papers have been exceedingly interesting and very practical. The whole matter resolves itself into one of education. First, the education of the attendant and second the education of the public. Now, the education of the attendant is a matter that begins early. There are two classes of men practicing medicine today, one class having been trained by a preceptor before entering college. The man who misses training with a preceptor of one or two or three years is missing a great deal. He learns many things in handling patients and in work that the man who goes to college and then to a hospital and then begins to practice misses.

In the education of the attendant, the greatest point, is the failure to recognize what he has. A practitioner is called to see a case or to take care of a case of labor, and even if he examines that patient he fails to recognize the condition. For instance, the fontanelles are not easily discovered, and he forgets sometimes that every child has an ear on its head, and that the ear is always on the side of its head. If that point is remembered by the man in attendance, it will help him out wonderfully in his work.

Another thing is the amount of time that is necessary to care for these cases and the very poor pay that is given the attendant. That comes in the matter of education of the

public. The public are pretty keen on this subject. Patients will pay a very good price for a mastoid operation or an appendectomy, and they are coming to the point where they will pay for their obstetrics, and it does not require very much work on the part of the men who are doing obstetrics and are teachers to bring this about. True, it has been a long time coming, but it is coming.

There is another thing which I think will be eliminated. I come from Buffalo where we have a large foreign population. We have something there that we have no business to have; we have the midwife; there is no occasion for the midwife in any locality. We have as large a foreign population in Buffalo, in proportion to our population, as any place, but we are gradually getting away from midwives. When the examination of midwives becomes as rigid as it should, there will not be any more midwives. District nurses can take care of patients very well.

I have a great deal of respect for the general practitioner because I was one myself for a great many years. We have men in general practice who take care of confinement cases in order to hold the family because they fear they are going to lose their business if they do not do so. That is wrong; they do their patients and themselves an injustice. If a practitioner does not like obstetrics, or gynecology, let him get out and do general work, and his patients will be much better pleased and he will get better results from his other work and be better thought of by his patients.

If in the teaching of obstetrics the idea could be hammered into everybody that it is a surgical procedure, it would be better, it seems to me, for obstetrics is a surgical procedure and always will be.

Then as to the use of forceps and so on by the man who is untrained, and the non-use of the gloves and the non-preparation of his patients for delivery. All these things will come, but if we can educate first the attendant and then the public, things will be a great deal better.

DR. FRANK DE W. REESE, Cortland: I was much interested in Dr. Markoe's paper and the position he gave in connection with delivery. I want to add this point: in delivering a woman we should use all the forces we can muster. With reference to the position that Dr. Markoe gives in the chair with the thighs flexed on the abdomen, and so forth, to facilitate delivery we can get the same effect in bed as Markoe gets, by taking a triangle bandage, or a towel tying it up, making a sling or loop, placing it over the knee and teaching the woman to pull from the knee. This is a device I have used for

twenty years, and many times I have been called in consultation in which I have used it and the women have expressed great relief. It has a splendid psychological effect and the time of delivery is materially shortened.

DR. JAMES E. KING, Buffalo: I was particularly interested in that part of Dr. Markoe's paper in which he discussed his tenement house technic. He spoke of the instruments being placed in a canvas bag and boiled and then carefully placed upon a table properly prepared. The patient was then placed on another table and at this point he left us. During the time that I taught obstetrics, I had great difficulty in outlining what, to me, was a satisfactory technic. I found that it was a very simple matter to prepare the instruments and to have them at hand in a sterile condition, but that is the preparation of the patient in the necessary manipulation for that preparation, a great many opportunities are presented for failures and lapses in technic. I would like to know what Dr. Markoe's teaching is in this respect, because it would seem from the practical standpoint to be one of the very important things of his subject.

DR. JAMES W. MARKOE, New York City: It has been a great pleasure to me to have heard these papers, and I regret that in my enthusiasm I was unable to finish the reading of my paper. I will try to answer the questions that have been asked.

At the Lying-In Hospital we have about seven thousand cases each year, and to do the work properly we have sixteen house officers who go with the students. When a student goes out to a case he is followed in a short time by a house officer, and this house officer may have five or six other cases to see, and so does the next house officer and so on in this way until all the cases are seen.

In regard to the use of bichloride of mercury: it means a long explanation to go into it and to tell you exactly what it means, but suffice it to say, we have used bichloride of mercury for twenty-seven years largely because in those days it was the agent that everybody used in surgery. Nobody thought of using anything else until lately. I think it was about five years ago that we tried the experiment of giving up the use of bichloride and tried treating the cases without it. We attempted simple cleanliness. We have never used gloves in the out-patient department because we could not afford them. It would cost four thousand or five thousand dollars a year to supply students with these gloves. We have to depend upon them wash-

ing their hands thoroughly in hot water. It does not seem credible to me now that we have to use bichloride of mercury in our outdoor service, for I never use it in my private practice, nor do I advocate it being used by the practitioner. Our students in the outdoor work are undergraduates who are doing this work under our supervision, and I really do not know what to say about it. Perhaps Doctor McPherson can throw some light upon the subject. The curious fact is that when we gave up bichloride of mercury in washing the hands, we had a lot of fever and morbidity which we never had before. When we returned to its use again we got good results.

In regard to asepsis and laying the instruments down on the table—the table on which the instruments are laid must be clean.

Every obstetrician should be a surgeon before he attempts to specialize in obstetrics.