

siders, outside of the relief of pain, the effect is a bad one, as it both induces hæmorrhage and delays uterine contraction in the third stage.

Dr. E. H. Grandin as a rule uses an anæsthetic when the presenting part reaches the pelvic floor, always in primiparæ. He uses chloroform, except in cardiac cases, and then ether. He finds that it produces relaxation of uterine spasms and of spasm of the muscles and fascia of the pelvic diaphragm. "If the anæsthesia be prolonged," he says, "I am on the lookout for excessive hæmorrhage and delayed uterine contraction." He uses chloroform in prolonged operations when a careful anæsthetist gives it, otherwise he uses ether.

Dr. Reynolds uses anæsthetics in the second stage of labor when the contractions are good. He finds the action to be relaxation of the os and the muscles of the perineum, with diminution of the force of labor, in slow cases this latter being one of the disadvantages of the use of the drug. He says he generally carries ether to the point of unconsciousness so soon as he can control the chin per rectum, in the belief that he can more often by this method save the perineum. He believes that the use of an anæsthetic in the second stage causes an increase in the relaxation of the uterus and consequent hæmorrhage. He has never had a fatal case of post-partum hæmorrhage. He uses ether entirely, because the opinion of the community in which he lives is against the use of chloroform.

Dr. Clifton Edgar does not use anæsthetics as routine in the second stage of labor. When he does use an anæsthetic he uses the A. C. E. mixture, sometimes sulphuric ether. He finds that it relaxes a rigid cervix, often rendering the subsequent pains more efficient. Chloroform, he finds, is likely to produce both hæmorrhage and delay in uterine contraction when used in excess. In prolonged operations he uses ether, and his chief objection to chloroform is that one not thoroughly familiar with its administration will abuse its use by giving too much.

Dr. Charles M. Green almost always uses anæsthetics in the second stage of labor and uses Squib's sulphuric ether. He finds the effect produced to be a relaxation of the soft parts, better success in saving the perineum from laceration, both on account of relaxation and because he has complete control of the patient. Personally he has had no bad effects, but believes that long continued anæsthesia does predispose to uterine inertia and hæmorrhage. In prolonged operations he states that all the Boston men use ether to the exclusion of chloroform, his chief objection to chloroform being that it is more dangerous to administer.

Dr. E. P. Davis uses anæsthesia in nine cases out of ten, usually chloroform for normal cases and version, for all the other operations ether.

He finds that it produces better uterine contraction by removing the cerebral inhibition from conscious suffering, partial relaxation of the uterus when pushed, facilitating manipulation. He believes that chloroform when properly used produces neither hæmorrhage nor delayed uterine contractions in the third stage.

It is generally agreed that the operator must always begin the anæsthesia if no skilled assistant is present. After anæsthesia has been begun, the nurse may hold the inhaler, although the physician must himself pour on the fresh chloroform if needed. For the want of following this rule I have known of a fatal case happening. In chloroform narcosis the contraindications are cases of anæmia in the dying, well-marked goitre, in myocarditis, in cases of dyspnoea or extreme collapse, heart disease, or placenta prævia.

To sum up, with regard to anæsthetics, in this country and the United States the majority of practitioners seem rather to favor its use, although in England and abroad they do not recommend its use to nearly the same extent, and almost every one of the authorities consulted agree that it undoubtedly predisposes to uterine inertia and consequent hæmorrhage in the third stage. This more particularly applies to chloroform, which is most commonly used. Anæsthetics are hardly ever used in the third stage, unless in cases of severe operative procedure.

Dr. J. C. Reeves, of Dayton, Ohio, one of the best authorities on chloroform in the United States, and author of the chapter on the subject in the *American System of Obstetrics*, Vol. I., uses chloroform frequently whenever the pain is severe or the soft parts give slowly. He says he believes that it has an injurious effect likely to be marked in proportion to the length of time used and the depth of narcotism. He expects to watch a patient more closely after anæsthetics.

Dr. George L. Engelmann, of St. Louis, uses anæsthetics moderately in the second stage of labor, always chloroform, depending upon the sensitiveness and nervousness of the patient and relation of the pelvis to the head. He finds the effects vary with the case, pains more regular, powerful and efficient in many cases, especially in nervous women. He believes no ill effects arise in the third stage, unless overdone, and care is necessary.

Caseaux finds that chloroform is of service both in relieving pain and causing relaxation of the parts, but predisposes in the third stage to uterine inertia and p.p. hæmorrhage.

Such, I may say, is my personal experience both in private and hospital work. I consider towards the end of the second stage, where the pain is very severe, it is apt to cause inversion of polarity, thus delaying labor and con-