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ORIGINAL ARTICLES.

LACERATIONS OF THE FEMALE SEXUAL ORGANS CONSEQUENT UPON PARTURITION; --THEIR CAUSES AND THEIR PREVENTION.

BY S. D. GROSS, M.D., LL.D., D.C.L. OXON., L.L.D.
CANTAB., EMERITUS PROFESSOR OF SURGERY IN THE
JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

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My object in appearing before you, as stated in the programme, is to read a paper on lacerations of the female sexual organs consequent upon parturition. It may seem odd, if not impertinent, to those of you who do not know me intimately, that I should venture to discourse upon such a subject so essentially in the hands of specialists; but they will perhaps pardon me if I tell them that, although I have all my professional life, now extending over a period of fifty-six years, been a general practitioner, yet during the first third of a century of that life I was more or less extensively engaged in obstetric practice; while during the last third I have had more or less to do almost daily with the treatment of female diseases requiring the use of the speculum and operative interference of various kinds. I have performed ovariectomy, and on numerous occasions sutured the perinæum and the vesico-vaginal septum with a degree of success, if not highly flattering, at all events respectable. Within a short time after my entrance into the profession, I translated Hatin's *Manual of Obstetrics*, a small volume which had an extensive circulation in its new dress; in 1839 I contributed several pages in my work on *Pathological Anatomy on Uterine Moles*, founded upon original observations and dissections; and in 1854 I unearthed, after much labor and research, Ephraim McDowell's claims to the fatherhood of ovariectomy, up to that period generally ascribed to other sources. Moreover, as a writer on systematic surgery, compelled to keep abreast with the knowledge of the times, I have embodied in my treatise an elaborate chapter on the diseases and injuries incident to the genital organs of the female sex, reflecting, at least in some degree, an outline of the existing state of the science. I make these remarks, in anticipa-

tion, as a justification for bringing before the Section a subject which, in some of its relations, has been so often and so elaborately discussed by many of the ablest men all over the civilized world. I might have taken my budget before the Surgical Section, but believing that fairer justice would be meted out to it here, I have given it this direction. When I shall have finished my task I trust you may not be able to say with Appelles, "*Ne sutor ultra crepidam*;" but rather incline to Tacitus, "*Nihil scriptum miraculi causa*."

It is astonishing how much has been written on the treatment of these lesions, and how little has been said upon their causes and prevention. Operations almost innumerable have been devised for their relief; volumes have been written upon the subject, and everywhere, in town and city, the gynecologist is ready to offer his services in sewing up lacerations of the genital organs of maltreated and unfortunate women. Seldom do we hear the voice of any of them raised in behalf of preventive measures, and then only in an indirect or roundabout manner. I am here this evening, not to wrestle with shadows or imaginary demons, but with stern realities, and to speak the truth, the whole truth, and nothing but the truth, as I understand it. The time has arrived when this matter should be met in a bold and fearless manner.

The lacerations of which I desire to speak are those which affect—(1) the perinæum; (2) the vesico-vaginal septum; (3) the recto-vaginal septum; (4) the neck of the womb; and (5) the urethra, or mouth of the urethra and of the vagina. A few remarks under each of these heads will suffice for my purpose.

Laceration of the perinæum is of frequent occurrence, and cannot always be avoided even under the most judicious management. In primiparæ, the fourchette is almost invariably ruptured, especially when the tissues are unusually rigid, and the protruding structures are very large, or very rapid in their descent, or where the perinæum is not properly supported. Fortunately, such an occurrence is of little moment, as it respects the patient's welfare, either present or prospective. But it is very different when the rupture is extensive, involving a large portion of the perinæum, or perhaps extending—as not infrequently happens—through the sphincter muscles of the anus and the lower extremity of the vagina. Then such an accident constitutes a great evil, and demands more or less skill for its cure.

Lacerations of the vesico-vaginal septum are among the saddest of calamities, entailing, if not

successfully remedied, endless suffering upon the poor patient. I know of nothing more calculated to excite our sympathy, or to enlist the noblest qualities of our nature. In the worst forms of such accidents, in which science and skill offer no relief, as occasionally happens even in these enlightened days, death would be a welcome visitor. Equally distressing is a recto-vaginal fistula, or a rent with loss of substance in the urethra.

Lacerations of the neck of the uterus, even when comparatively slight, often entail great suffering, local and constitutional; the former manifesting themselves in various kinds of pains and discharges, and the latter in almost every form of nervous disorders of which it is possible to form any conception, together with more or less derangement of the digestive and assimilative organs. Of the frequency of these accidents, an idea may be formed when I state, what has long been known to most of you, that one of our most distinguished native writers on gynecology has expressed his conviction that rupture of the neck of the uterus, in greater or less degree, is almost inseparable from a first labor. Whether Dr. Emmet is correct in this conclusion is a question which remains to be determined. If it be true, it would inevitably go to prove that God has made woman much less perfect than the world has given him credit for. As childbirth is one of the special prerogatives of woman, designed to perpetuate the race, there is something peculiarly distressing in such an idea. Looking at the matter from a practical standpoint, one would naturally conclude that the Author of our being had constructed the womb with special care to protect the organ, at least as a rule, against the possibility of a contingency fraught with such sad consequences. If we assume the correctness of Dr. Emmet's statement, we may well wonder, without irreverence, why Almighty God did not create simultaneously with woman a competent gynecologist, ready to meet this inevitable evil, for such unquestionably it must be whenever it occurs. If this evil is the outgrowth of civilization, then the sooner we get rid of this civilization the better will it be for our poor wives and daughters, considered as procreating beings.

It was a happy circumstance when, in 1851, Sir James Y. Simpson first called attention to this important subject. It was like the discovery of a new world in human progress. In the *Proceedings of the Edinburgh Obstetrical Society*, for January of that year, he proclaims the important truth, until then unknown, or only guessed at, that fissuring and laceration of the cervix are not, as had been generally believed, rare lesions during labor, but, on the contrary, very common occurrences, especially in primiparæ, and he supports his views, not only by what he saw with the aid of the speculum, but by an appeal to autopsies in which rents and fissures were detected in the mouth and neck of the uterus after natural labor. The facts thus pointed out by the great Scotch professor were afterwards—namely, in 1869, and again in 1874—brought more fully before the profession by Dr. Emmet, in two important papers published in the *American Journal of*

Obstetrics, where they soon attracted general attention. To these two distinguished men, then, are we mainly indebted for the knowledge which we now possess upon this important subject; knowledge of priceless value to suffering woman, and of the greatest consequence to the obstetric practitioner.

If we inquire into the exciting causes of these accidents, it will be found that they vary with the situation and structure of the parts involved in them. The great factor in laceration of the perinæum is parturition, either alone or in conjunction with the means employed to effect it. When this wall to the outlet of the pelvis is very rigid, and the action of the uterus unusually vigorous, forcing down the head of the child with great vehemence, it is easy to conceive not only of the possibility, but of the great likelihood of such an accident, especially in the absence of proper support. In such a condition the perinæum is very much, to use a figurative expression, in the position of the door of a room, with a big, burly fellow on the inside, knocking for egress. To carry out the simile, he does not in every case batter down the whole of the opposing obstacle, but only a portion of it, representing a comparatively slight laceration, as where the fissure is limited to the fourchette, or to the anterior portion of the perinæum, while, when the resistance is extreme, the entire wall is torn, the lesion extending, through the sphincter muscles, into the rectum; in other words, the entire door is battered down, and the vagina and bowel are laid completely open.

Of the various kinds of lacerations of the vagina, or of the vagina and the uterus, constituting what are known as fistulæ of the bladder, or of the rectum, those dire calamities which form so prolific a field for operative interference, the most common factor unquestionably is either prolonged or very severe pressure. "This is," says Thomas, in his able work, "beyond all doubt, the most prolific source of the accident, though it may also attend a rapid labor in which the vagina has been pressed against some point of the pelvis with great violence." The active agent of this pressure is generally the child's head, especially when it is disproportionately large or wedged in behind the pubic symphysis, unduly compressing the vesico-vaginal septum, followed by destructive inflammation and sloughing. The accident is generally the result of protracted pressure, as when the child's head has been wedged in in this position for many hours, neither, perhaps, receding nor advancing; or it may be caused in a very short time, as when the pressure is unusually concentrated and severe. If the pains are very violent, the pressure of the presenting parts may be so great as to end in actual rupture of the vesico-vaginal septum, but, as a rule, the opening is the direct result of concentrated pressure, eventuating in inflammation and sloughing, precisely as in an ordinary bedsore. Vesico-vaginal fistulæ are not infrequently produced by the pressure of the child's head upon a distended bladder. How far the maladroitness of the forceps, vectis, or other instruments may be capable of producing such lesions, will form the subject of future inquiry.

The principal causes of lacerations of the cervix

are precipitate labor, labor attended with rigidity of the mouth of the womb, and instrumental labor. Lacerations are not uncommon in breech cases, in which delivery is obliged to be expedited on account of the retained head before the cervix is properly dilated. These are unquestionably the most frequent and efficient factors in the production of accidents in this situation. If to these we add the presence of cicatricial tissue in the cervix, malpresentations, and section of the cervix, as occasionally practised by ignorant obstetricians, we have a complete list of all the causes, active and predisposing, of rupture of the uterus during normal parturition. A premature discharge of the amniotic fluid acts mainly, I presume, as a means of retarding labor than as a cause of laceration of the cervix. I must not omit to allude here to a statement of Dr. Emmet that laceration of the cervix is of frequent, if not common, occurrence in cases of criminal abortion. I do not know that this fact has been noticed or verified by other observers, but of its truth I entertain no doubt. In his tables, Dr. Emmet gives ten cases of this kind, and he declares that he has met with this accident in every instance where the woman admitted the fact of exposure to malpractice.

Having thus briefly discussed the situation and causes of the accidents in question, let us, in the next place, inquire into the best means of preventing them, the chief object which I have had in view in bringing this matter before you to-day. There is more honor in one ounce of preventive midwifery than in one pound of curative gynecology, the outgrowth of ignorant or meddlesome obstetric practice. That many of these occurrences are inevitable without any just blame attaching to the professional attendant is well known to every practitioner of the least experience, but that they may, as a rule, be prevented by the exercise of proper care and skill will, I think, be readily admitted; at all events it is true.

The great remedy, as laid down in the books, for rigidity of the perinæum is manual support during the descent of the child's head, or whatever else the presenting parts may be; this, as a rule, is quite sufficient; but not so when the resistance is very great. In this event, the accoucheur is expected to make use of the hot bath and of hot fomentations, to anoint the parts with oil, and even, in extreme cases, to make slight incisions on each side of the middle line. Nothing is said in these injunctions of the abstraction of blood as a means of relaxing this tense, resisting wall which so obstinately stands in the way of the completion of the parturient process. What are the active agents of this resistance? Unquestionably the muscles of the perinæum, the sphincters of the vagina and anus, the transverse muscles, and the elevator muscles of the anus. The skin and connective tissue offer no obstacle. The whole difficulty resides in the muscles, and its amount is precisely in proportion to their development, great in strong, young, robust women, and comparatively slight in those of an opposite character. If this statement be correct, and no one can doubt it, it follows, as a necessary corollary, that the obstacle is most readily overcome by some measure that will relax the perineal muscles.

Hot water, oil, and medicated unguents will not do this, and no sane man would wait for the tardy and uncertain effect of local bleeding. A far better plan is to take blood at once from the arm from a free orifice in one of the large veins, the patient sitting up in bed during the operation, so as to produce the most rapid and decided impression at the least expense of the system. If there be anything better than this, anything more likely to answer the purpose, I am not aware of it. The loss of ten, twelve, sixteen, or even twenty ounces of blood can do no harm in such a condition of things. A few days under proper treatment always suffice to replace it, while, as a rule, it promotes rather than retards recovery, by rendering the woman less liable to puerperal fever, peritonitis, and pelvic cellulitis.

In regard to lacerations of the vesico-vaginal septum, much may be done in the way of prevention, and so also in regard to rents into the rectum. It is self-evident that anything that lessens the size of the canal through which the child is to pass, or that seriously interferes with the descent of the child's head, must act as an impediment to delivery. All obstetric teachers are aware of this fact, and hence they take special pains to instruct the young practitioner to see that the rectum is well emptied during the latter stages of pregnancy, or, at all events, on the approach of labor, and that the urine is evacuated from time to time as the labor progresses. These precautions are unquestionably most important safeguards, and, if duly attended to, are rarely followed by serious injury. If, on the contrary, they are neglected, as I fear is not infrequently the case, especially among the lower classes of women, it is easy to conceive that the consequences must be of the most direful nature, especially if, superadded to these obstacles, there is an impacted condition of the child's head along with violent uterine contraction. Under such circumstances it is difficult to conceive how the poor patient could escape injury in some form or other. The machinery must break down somewhere. A few hours may suffice to do the mischief. The only remedy, of course, is the forceps or crotchet, and the former cannot be applied too soon. The bladder must be liberated, or a vesico-vaginal opening, if not something worse, will be the inevitable result.

The proper remedy for the relief of the stationary head, whether impacted or simply arrested by the inertia of the womb, is—provided the cervix is sufficiently dilated, or dilatable—the forceps, that “noble instrument,” as it was called by Chapman, who, in 1733, published the first account of it, upwards of one hundred years after its invention by Paul Chamberlen, of England. I shall not speak of the numerous modifications which this valuable instrument has experienced in the hands of the obstetricians, or detain you by asking whether the long instrument is preferable to the short, or the short to the long. In the hands of the judicious practitioner, each has a distinct and separate value; but it will be pertinent to the object of this paper to inquire into the reasons which have led to the great changes which have taken place in regard to the frequency of its use.

Beginning with the great Baudelocque, the most

illustrious accoucheur of the last century, we find that he applied the forceps once in 561 cases; Clark in 728; Collins in 617; Lachapelle in 293; Baer in 274; Boivin in 214; Davies in 53; Naëgle in 31; Kluge in 16; Carus in 14, and Siebold in 7.¹ Smellie, who flourished in the middle of the last century, and who was the most famous accoucheur in his day in Great Britain, applied the forceps once in 125 labors; and Merriman, another distinguished English obstetrician, once in 93.

From the late Dr. Churchill, of Dublin, we learn that in Great Britain, until recently, the forceps were employed once in 249 cases; in France, in 140; and in Germany, in 106.

In this country, the present fashion is to apply the forceps very frequently, both in private and in hospital practice. Some of my friends inform me that some accoucheurs resort to the instrument as often as once in four labors; others in 6, 8, or 10. Whether the forceps are employed as often in Great Britain and on the Continent of Europe, I am unable to say; but the difference, if any, must be very trifling.

Dr. William P. Dewees, who was the great Philadelphia accoucheur in his day, and who delivered upwards of ten thousand women, writing in 1843, holds the following language in regard to the use of the forceps: "However strongly I may be impressed with the utility of the forceps, I should not feel myself warranted to use them as often as they appear to be in Great Britain and on the Continent of Europe. The frequency with which they have been employed in some instances is really alarming, and, I had like to have said, must have been too often unnecessary. In my own proper practice, I have not employed them oftener than once in 350 cases, though I have been under the necessity of using them very frequently in the practice of others."²

Notwithstanding that Dewees so seldom employed the forceps in his own cases, we nowhere find that he had any serious lacerations of the genital organs. In the tenth edition of his *Treatise on the Diseases of Females*, published in 1854, "with the author's latest improvements and corrections," not one word is said upon the subject, not even upon rupture of the perinæum. Now, if such accidents had occurred under his observation he could hardly have failed at least to mention the fact. If I am told that Dewees did not use the speculum, and could, therefore, not detect them, I reply that he had eyes to see, and fingers to feel. He certainly could tell what the nature of the case was when urine or fecal matter flowed off by the vagina. Philadelphia's great accoucheur, Dr. Ellwood Wilson, has superintended, as he informs me, 10,600 cases of labor at the Lying-in Hospital in that city, without the occurrence of a solitary instance of vesico-vaginal, or recto-vaginal fistula. He, like others engaged in large private practice, has witnessed numerous atrocities in consultations. The testimony of my late colleague, Professor Ellerslie Wallace, is precisely of the same import.

In a discussion of the admirable paper of Dr. Emmet, "On the Necessity for Early Delivery, as Demon-

strated by the Analysis of 161 Cases of Vesico-vaginal Fistula," read before the American Gynecological Society, in 1878, Dr. D. Humphrey Storer declared that, in an experience of several thousand cases of midwifery, he had witnessed only two cases of vesico-vaginal fistula, adding that there was no man in Boston who applied the forceps less seldom than he. He approved of the employment of the forceps in certain conditions of labor, "but the idea," he remarks, "that the forceps is an instrument which must be almost constantly used is, I think, a dangerous one." This sentiment was elicited by the statement of Dr. Emmet that the great factor in the production of vesico-vaginal fistula is impaction and long detention of the child's head, aided by distension of the bladder, and the assertion that instrumental delivery has rarely, if ever, any agency in the production of this sad occurrence.

Dr. H. P. C. Wilson, of Baltimore, on the same occasion, asserted that he had made it a rule for many years, when called to a case of labor, to carry with him a bottle of chloroform and a pair of forceps, adding that he had frequently used the forceps when he was certain that the woman would be delivered safely by nature, simply to shorten the labor and to relieve suffering. Dr. John L. Atlee, in referring to Dr. Wilson, said, "the older I grow the more apt I am to employ the forceps." In opposition to these sentiments, I take leave to cite the views of America's latest writer on obstetric medicine, Dr. Lusk, as expressed in his admirable treatise, *The Science and Art of Midwifery*, the second edition of which was issued only a few months ago. "I can only say," declares this excellent author, "that, with increasing experience, my own practice has grown more and more conservative, and my own belief is that true wisdom requires us to abstain from even trivial operations, so long as nature is able to do her work without our assistance."

Is it not a fact, I would ask, that the forceps are often used merely as a means rather to save the time of the accoucheur, than as a means to prevent the suffering of the poor woman; to enable him to meet another engagement, to visit the theatre, or to attend a dinner or an evening entertainment? Passing along the streets, not long ago, said Dr. Goodell to me a few months since, my eye lighted upon a gentleman walking rapidly on the opposite side, who, the moment he recognized me, shook his green bag at me, exclaiming, "reed-birds for supper," and hurried on.

I take leave here to quote what I deem eminently pertinent to this part of my paper, a passage from a communication that appeared in the *New York Medical Record*, March 8th of the present year, from the pen of Dr. A. E. Dugas, of Augusta, Georgia: "When I graduated in 1875, an old sage in the profession advised me as follows: 'My boy,' said he, 'I am an old man; I have practiced over fifty years, and, as you are aware, have been very successful. In regard to your labor cases, I would give you the following advice: First, as you intend practicing in the city, make it a habit of leaving

¹ Robert Lee's Table, in Lectures on Midwifery.

² Midwifery, p. 292.

your forceps at your office, for if you ever require them, you will always have ample time to send for them, and your not having them with you may save some women much trouble. Second, do not examine your patient much or often; see that things are right, and then let nature manage the case."

The "old man" here alluded to is no less a personage than the great and venerable Dr. Louis Alexander Dugas, a man of vast experience as a practical surgeon and accoucheur, and emphatically one of the sages of our profession. How wise such advice is in contrast with the accursed practice of the day, when every obstetrical fledgeling thinks himself competent to use the forceps, and is anxious to get to his "reed-bird supper," I leave you to judge.

If all accoucheurs were well educated and well versed in the use of the forceps, there might be some justification for the frequency with which they are applied at the present day. There might even be some justification in hitching them on the child's head, when nature is fully equal to her task, to get home in time to a good supper; but to use them on the slightest pretence, as is so often done now-a-days by every sciolist, hardly out of his swaddling-clothes, is, if you will allow me to say it, simply damnable. Surely our obstetric teachers have a great deal to answer for in sending forth every year armies of incompetent young accoucheurs. Surely they commit a grave sin when they teach the frequent application of this "noble instrument," employed far too seldom in former times, as it is certainly employed too often in ours. In conversing recently upon this subject with a distinguished obstetric teacher, now retired, he said to me, "I always enjoined it upon my pupils, after pointing out to them the uses and abuses of the forceps, to carry the instrument with them to every case of labor, adding that it was just as important as it is for the mariner to carry his compass with him to sea." Without wishing to disparage the judicious use of the forceps, which I have no right to do, and which God forbid I should do, I think a careful consideration of the case justifies me in endorsing the opinion of Baudelocque, uttered more than a century ago, that the forceps, as generally used, have done more harm than good, and in this view I am glad to be able to say that I am sustained by many eminent, able, and experienced obstetricians and gynecologists of the present day.

That many accidents happen for the want of a proper use of the forceps, or of their timely application, is proved by the numerous cases of vesico-vaginal and other fistulae, and by the still not infrequent sacrifice of the child, if not also of the mother; of the former by fatal compression or craniotomy, and of the latter by exhaustion, heart clot, pulmonary obstruction, or other causes. It would be difficult to find in all the records of obstetric medicine a case which more sadly and forcibly illustrates the baneful effects of the want of the proper use of the forceps than that of the Princess Charlotte, whose death, in 1817, threw the whole British nation into mourning. The amniotic liquor had been discharged early in the labor, and although the head had long been in the lower strait, the delivery, which took place at the end

of fifty-two hours, was intrusted entirely to nature's efforts. No wonder that the child was still-born, and that the poor woman, exhausted by her protracted labor, expired soon after her delivery. No wonder that her principal accoucheur, Sir Richard Croft, committed suicide as the best remedy for his sad blunder and consequent mortification!

I come, in the third place, to inquire briefly into the proper preventive treatment of lacerations of the cervix. We have said that these injuries are most common, by far, in primiparæ, especially when pregnancy occurs in women somewhat advanced in life. Spiegelberg found that the average duration of labor in 506 primiparæ was 17 hours, and 12 hours for multiparæ. After the thirtieth year, the duration is materially increased, amounting, according to Hecker, in primiparæ, to twenty-one hours, and, according to Ahlfeld, to twenty-seven hours.¹ If we ask what is the cause of this difference in the duration of labor in primiparæ and multiparæ, we shall find a ready answer in the difference in the pliancy and softness of the genital organs, and in the fact that the way is paved by the previous parturition. In primiparæ, especially in elderly ones, the genital organs are hard, firm, inelastic, unyielding; in multiparæ, on the contrary, they are comparatively soft and dilatable, yielding readily before the advancing head. In the one case the labor is comparatively easy, rapid, and safe, both to mother and child; in the other, painful, protracted, and fraught with danger; the uterus and perinæum, not to mention the vaginal septa, are liable to be torn, and the child often perishes from injury inflicted upon its head and lungs. If, in such a labor, delivery be attempted with the forceps before the parts are properly relaxed, or if attempts be made to dilate the parts forcibly with the fingers, it is easy to perceive that rupture, of a more or less serious nature, must inevitably happen.

Since the attention of accoucheurs was first directed to the frightful frequency of lacerations of the cervix in primiparæ by Simpson and Emmet, the subject has assumed a degree of importance previously undreamed of, and the question naturally arises here: How are these injuries to be avoided? How are we to abridge the duration of labor in primiparæ, and to place them on the same level with the multiparæ? There is but one way to accomplish the object, and that is by the employment of relaxing agents. It is a well-known fact that labor is more easy in hot than in cold climates, a circumstance that would naturally lead us to employ hot applications, as the hot bath, hot fomentations, and hot injections. I will not deny that such agents might occasionally do good, but what sense is there in parboiling a woman when we have at hand other agents far more speedy and more efficacious in their action. I do not allude here to chloral, ether, chloroform, and tartar emetic, the latter of which, from its tendency to produce vomiting, could hardly in any case be a safe remedy, while the former, with some advantages, would seldom prove reliable to bring about the desired result. The great remedy which I have in my mind's eye is vene-

¹ Lusk, Science and Art of Midwifery, p. 134. Second Edition, 1884.

section, carried to a reasonable but sufficient extent to relax the system and through the system the genital organs. I do not introduce this as a new remedy, for general bleeding to overcome rigidity of the uterus and perinæum was practiced long ago, and is still practiced by many of our older physicians under such circumstances; but I desire to recall attention to it as the most prompt, powerful and efficacious of all the agents that the accoucheur can press into his service for the attainment of this end. I am not abashed if I am told, at the very threshold of this announcement, that venesection is an obsolete art, that none but old fogies would think of employing it, and that the blood during pregnancy undergoes such great changes as to render the loss of it, except in puerperal convulsions, an improper expedient during labor with a view of expediting it.

There was a time when this agent was very generally, I had almost said, universally used, even in my early days, in great rigidity of the sexual organs; fortunately, that day has gone by. But if the lancet was used too much then, it is certain, at least to my mind, that it is not used enough now. We are too apt, as a profession, to be influenced by prejudice, especially when it is backed by great authority. When the wether jumps, the rest of the flock are sure to follow. I recollect when it was customary to bleed pregnant women for the relief of headache, dizziness, or vertigo, pulmonary congestion from aortic obstruction, and pelvic and sacro-lumbar pains. The "false pains," as they are termed, often so harassing and worrying as to be a source of real suffering, may generally be promptly relieved by the abstraction of eight, ten, or twelve ounces of blood; and who would not bleed, bleed freely, when a plethoric pregnant woman is threatened with convulsions? To withhold the lancet in such a condition would simply be criminal, and yet some obstetricians, even of world-wide renown, would content themselves with the exhibition, in such an event, of chloroform, of chloral hydrate, or of both articles combined.

If I be told that a pregnant woman should not be bled because, while in this condition, she experiences a marked decrease of the red corpuscles of the blood, I answer that this would be simply begging the question. If this were the only change which this fluid undergoes to meet the physiological necessities of the system during utero-gestation, there might be some reason for such a conclusion. But this is not the fact, for, while there is a marked diminution of red globules, there is also a marked increase of fibrin and albumen, assimilating the mass of this fluid to the condition in which it is found to be in inflammation. Instead, therefore, of using these changes as an argument against the use of the lancet, they afford the strongest possible evidence in favor of it whenever a powerful relaxant is required to facilitate parturition. May plethora not be caused by the presence in the blood of an undue proportion of its fibroid, albuminoid, and aqueous constituents? Blood is formed rapidly in pregnancy, to meet the demands of the system, and it is not at all necessary to perform experiments on bitches to prove what daily passes under our observation in the human subject. The great

strength, the exuberant health, the florid cheek, and the genial warmth diffused throughout the entire system, sufficiently attest the presence of an active circulation, with an abundance of red globules, although they may be relatively fewer than in the non-pregnant state. No rational accoucheur would bleed an anæmic woman, or a woman laboring under cardiac disease, aortic insufficiency, chronic malarial fever, or any wasting malady whatever. Such affections point out their own remedies—supporting, and not depleting measures.

There is an idea, almost universally prevalent, that the people of the present day do not bear loss of blood as well as they did forty, or even twenty, years ago, an opinion which has exerted such an influence upon medical men, as well as upon the public at large, that venesection has become an obsolete operation, or an operation which is, at most, limited to a few old fogies—as they are sarcastically styled—ignorant of the benign progress of the healing art, and of the tolerance of the system. Whether this opinion be true or erroneous, this is not the time or place to inquire; suffice it to say that my solemn conviction is that the neglect into which this operation has fallen, not only in midwifery, but in general practice, is the cause, annually, of the loss of thousands upon thousands of human lives that might otherwise be saved.

If I were asked under what circumstances a pregnant woman, in sound health, without any complications, ought to be bled, I should answer, first, when she is threatened with abortion, miscarriage, or convulsions; secondly, when there is a rigid os, obstinately refusing to yield after the labor has been in progress for six, ten, or twelve hours; thirdly, as a rule, in tardy labor in primiparæ, especially after the age of thirty; fourthly, where there is, so to speak, rigidity of the general system, including, of course, the sexual organs; fifthly, when there is a decidedly feverish condition of the system, associated with severe headache, great heat and dryness of the genital organs, a rigid os, or os and perinæum, and inefficient, teasing labor-pains; and, lastly, in torpor of the uterus from the effects of inflammation, gout, or rheumatism, interfering with or retarding delivery. In all, or, certainly, in most, of these conditions, I should follow up the effects of the bleeding with an anæsthetic, or a hypodermatic, injection of morphia. I solemnly believe that, if these rules were properly observed, the process of parturition would be greatly facilitated, the pains of labor materially abridged, and the risks of lacerations, which now stand as such a blot upon obstetric practice, would be reduced to the merest minimum, not to say anything about the much greater safety of the child, and the more rapid recovery of the mother.

As to the quantity of blood to be abstracted, every case must be met on its own merits. While in some instances the loss of a few ounces may suffice, in others, especially in strong, robust, plethoric women, sixteen, twenty, or even thirty may be required. Dr. Dewees, to whom is justly due whatever praise or blame attaches to this practice, occasionally bled to the extent of forty ounces before he succeeded in overcoming the rigidity of the os. Sometimes,

indeed, he carried the operation even to syncope; always placing the patient in the erect or semi-erect position, so as to expedite and increase the effect.

Dr. Dewees informs us that he was led to adopt the employment of general bleeding in midwifery, near the close of the last century, from having witnessed its beneficial effects in the practice of Dr. Physick, in relaxing the muscles in dislocations of the shoulder-joint.

Out of the injuries now considered, often unavoidable, but in the great majority of cases the effects of gross ignorance, timidity, indecision, or the mal-adroit use of the forceps and of other instruments, has grown gynecology, a twin sister of surgery, the scientific foundation of which was laid hardly thirty years ago by the immortal Sims, aided by Bozeman, Thomas, and Emmet, of America, by Baker Brown, of London, and by Gustav Simon, of Heidelberg, all pioneer laborers in this great field of the healing art, now trodden by many thousand feet, and illustrated by special treatises and contributions alike honorable to their respective authors and creditable to their respective countries.

DISCUSSION.

Dr. Battey, of Georgia.—Mr. Chairman: I would like just one moment to put myself upon the record in confirmation of one of the views by our late lamented associate of this Section, and it is this:

Although a very much younger man than Dr. Gross—very much younger—the summing-up of my obstetrical experience is (to put it in a word), in looking back over it, in not a single instance have I regretted the use of my lancet in obstetrical practice. In many, many instances, as I now recall them, I think that positive good would have grown out of the more frequent use of it. I bleed, sir, still.

Dr. H. F. Campbell, of Georgia.—Mr. Chairman: I am glad of the opportunity of being able to discuss a paper, the principles of which, perhaps, would meet with no commendation from many, no matter how much we venerate the illustrious man who honored this Section with his last contribution. I am glad that I entertain views so entirely consonant with his. I am glad that my friend from the same State as myself (Dr. Battey) agrees, to a great extent, in the few remarks that he made, with myself.

Blood-letting in labor, blood-letting especially in puerperal eclampsia, has, in my opinion, been most unjustly laid aside, most unjustly condemned. Let us look back and see what has been given us in the place of blood-letting—chloroform, chloral, bromide of potassium, and a variety of other ex-sanguinating remedies—while, at the same time, it is absurdly claimed that anæmia of the brain is the cause of convulsions. It is also claimed that uræmia is the cause of convulsions.

Now, let us look at the natural and logical results. Let us take the anæmia question. If anæmia of the blood causes puerperal convulsions, why give those very remedies that produce ex-sanguination of the brain? If convulsions are caused by anæmia of the brain, why give chloroform? Why give bromide of potassium? Why give chloral—all remedies that ex-sanguinate the brain?

On the other hand, let us look at the uræmia question. If uræa, as it is said, collected in the blood, results from congested kidneys, if congested kidneys arrest the flow of urine and give rise to uræmic blood, we ought then to ex-sanguinate the kidneys, to bring the kidneys down to the point of proper and healthy elimination, that the blood may be freed from them.

Now, about this question of blood-letting producing convulsions. If a woman had convulsions, it was claimed, at one time, that there was irritation of the brain; now, it is claimed that it is anæmia of the brain. In order to prove this question, I took two birds. I cut the carotid arteries and all the tissues of one of these birds, that were in front of the cervical portion of the column. That bird bled, bled, fell, and died without a kick, showing that, if anæmia of the brain would produce convulsions, certainly my bird, which was an ordinary barn-yard fowl, would not have died without a kick. [Laughter.] In the other bird, I left all the arteries and other tissues in front of the column intact, and then severed the cord by a subcutaneous incision between the cervical vertebræ. The convulsions were exactly those witnessed in the fowl after decapitation, only they were more prolonged, as life was sustained by continued circulation. Indeed, the severing of the arteries arrested the convulsions. That bird might have been hopping until now, had I not severed the carotids and produced anæmia of its brain. [Loud and prolonged laughter.]

Dr. Harvey, of Indiana.—Mr. Chairman: While no one excels me in respect and honor to the lamented author of the paper which has been read, I take it that the subject-matter is to be treated of as freely as though he were here among us; and especially do I deem it right and proper that we should discuss this paper, when such doctrines and teachings have been given to us this afternoon. It is a matter of necessity, it seems to me, that the views which are taught here by the paper and by the gentlemen who have discussed the paper, should meet with an expression upon the other side of the proposition,—because I know that such a feeling exists. [Applause.]

We are certainly not going to turn back in this age of the world and begin over again and bleed our patients. While I admit the necessity of the use of the lancet occasionally, in certain well-selected cases, I want to say, that, although I am a young man, I entered the medical profession in the days of blood-letting. And while I have seen good results, important results, in labor, from the use of the lancet, I must say that I have seen better results from the use of chloroform and opium, both in convulsions and the relaxation and the prevention of lacerations and other accidents spoken of by the paper. [Applause.]

I think that we ought to feel grateful to our lamented friend for having considered the subject and for bringing it before us as has been done. But I am certain that, by the remedies that are now in use, these accidents will be prevented much better than by blood-letting, which, although it acts occasionally beneficially, certainly does harm to the patient in the long run. [Applause.]

Dr. Kinloch, of South Carolina.—Mr. Chairman:

My friend who has just preceded me has anticipated some of the remarks I propose to make. My whole impression from the reading of this paper is that it is a paper representing simply the force of early impressions, and it shows how tenacious those impressions are, and we must not forget that opinions of great men have their power for evil as well as for good. [Applause.]

I disagree, sir, entirely with the sentiments as expressed in that opinion as to the surgical use of blood-letting. I have practiced medicine, sir, for thirty-five years, as a general practitioner, and have had my fair share of obstetrical practice, and have never yet bled a woman in labor, and I may say, without boasting, that I have only lost two women from consequences connected with the parturient state. I would ask my friend, if he were here, if he would apply the same rules to surgical as to obstetrical practice. And if the rules are not applicable to surgery, they are not applicable to obstetrics.

In reference to his remarks—I do not remember his exact language—that God should have created a skilful gynæcologist at the same time he created woman, to meet the difficulty of parturition, I would say that, according to his view, every woman ought to be born with a lancet around her neck to meet the difficulty. [Laughter and applause.]

Dr. Seymour, of Troy, New York.—Mr. Chairman: It seems to me, sir, from the experience of the different members who have spoken, that there must be some difference in the diseases of the localities in which they practice. Certainly it is the experience of the older men in the section in which I have used the lancet, that the diseases of the present time cannot sustain it, and I will ask the Section if it can be justified, in their experience, to employ bleeding in puerperal or other diseases in a condition of diphtheria and other poisons.

Dr. Smith, of Washington, D. C.—Mr. Chairman: An old friend of mine who has just left the room, remarked to me that the paper of Dr. Gross, which has just been read, takes rank with Washington's Farewell Address. [Applause.] I make this statement merely to say that the old doctors still believe in bleeding, the young do not believe in it quite so much. [Applause.]

Dr. Claiborne, of Virginia.—Mr. Chairman: I suspect that in this case, sir, the truth lies, as it ordinarily lies, in the middle,—that there are some cases which should be bled, and some which should not. And whilst I stood here yesterday, the advocate of chloroform and, as I believe, the use of chloroform is in a great many instances superior to venesection, yet I should be very sorry myself to throw the lancet utterly away. I am neither an old man nor a young man; I am in the middle, and therefore I claim to be nearer the truth. I have practiced medicine about thirty-two years, the most of that time engaged in obstetrical practice in a city where I had, of course, an opportunity of seeing a great many cases of obstetrics; and it is especially fitting that I should state to-day one word in memory of the venerable gentleman who has left with us his last contribution. At the last time on which I had occasion to appear be-

fore this convention, some one, in discussing the subject of blood-letting, made the suggestion that he doubted whether a single lancet could be found in the whole assembly. I pulled one out of my pocket and said that I had used it for twenty years,—which “brought down the house,” and Dr. Gross arose and complimented me. I think, sir, in view of that occasion, that I should say this one thing,—that the truth lies with him as it does with us. [Applause.]

Dr. Reamy (having temporarily vacated the chair).—As the time has nearly expired, and I find no one else on the floor, I take this opportunity to express two or three thoughts that have occurred to me. I think with my friend on the left (Dr. Harvey), that since this is a contribution to this department as the teachings of this great man, while we have the greatest veneration for his kindness of heart and greatness of mind, his wonderful industry, and his almost marvelous life work,—while we mourn together his death, even in the ripeness of his years, yet when we receive this paper, it stands upon the same ground that it would stand if he were living, because it is to be published. Therefore I, with my friend on the left, cannot let sentiments uttered in this paper from so distinguished a source, go upon the record unchallenged.

Perhaps enough has been said with reference to the fallacy taught as to bleeding, but still there is a little point in the matter which has not been brought out. Summing up in this paper, the distinguished author says that he would bleed in threatened abortion. There is no distinction drawn here as to what kind of a threat, as to the causes leading to the threatened abortion,—simply that if a woman were threatened with abortion he would bleed her. I need not qualify my remarks when I say that the inconsistency of such a recommendation is apparent. Granting that the blood-letting could do no possible harm ultimately, which we do not grant, and granting everything for it that is claimed, the proposition to bleed in every case of threatened abortion need not be condemned—it condemns itself!

He would also bleed in a case of fever! If a pregnant woman has fever, he does not make the distinction that, if the obstetrician or general practitioner in charge of that woman recognizes this fever as septic fever, the threatening of the storm that is probably to take her off, he would bleed her because she had received poison into her system, and fever had been produced by it! Why would he bleed such a woman as this, lessen her vital power, take from her the blood which is “the life thereof?” that she should therefore be the better prepared to fight the germs in her system? and bleed her that the next day she may enter upon the throes of labor minus that amount of life the lancet has taken from her? [Loud applause.] Rather husband every particle of strength, knowing that it will be required to resist the influences that are against her!

He would bleed her in a case of rigidity! He would bleed in a case of nagging pains! Now, I will not dwell upon this. An obstetrician in these times who has not been taught that the lancet is the grand remedy for all the ills that a parturient woman can enter upon, would, in cases of this kind, give her a dose of

morphia, chloral or chloroform, let her sleep for four or five hours, and come back and deliver her. Or, if her circulation required, would give her a sedative. He would bleed her in puerperal convulsions, perhaps. With my friend, Dr. Lusk, who has written so well, and whom the author of the paper has quoted, I would, and you would say, that the lancet has properly come in vogue again in those cases, and that in a certain proportion of those cases bleeding is the best remedy. There is no doubt about it, and at the same time that it includes but few of the cases. Those who have tried the hypodermic injection of morphine, and seen the woman sleep quietly and sweetly, who, a few moments ago, was in peril from most violent convulsions, would not, I fancy, be willing to bleed in every case—only in properly selected ones. [Applause.]

Now, just one word in regard to the forceps. This distinguished author ought to have sent to this Section a cut of the forceps to which he referred. He must have remembered that the instrument used by those who used it so infrequently at the time of which he speaks, was an instrument but a little improvement on the instrument used by Chamberlen himself. Those are not the forceps spoken of yesterday by my friend upon the left (Dr. Taylor, of New York). Instruments are not now what they were.

But he asserts that teachers of obstetrics have a fearful responsibility upon them for sending out obstetricians to use the forceps—to use it indiscriminately, and do with it so much damage. Now, without doubt, forceps are too frequently used by some practitioners. This instrument is used for the sole purpose of saving time, and, of course, it is wrong—to save time to the physician, I mean, for the purpose of getting to a good supper. It is wrong. But even my friend, Dr. Lusk, on my right, will grant that this charge in general is not sustained by the facts. The students who now go forth and are taught in this department, are more competent after two years' practice, very much more competent; and I do not refer to one college or to any single student. I say that the students who go out of the average medical college to-day, know how to use the forceps, are better instructed in their use, understand the principles better, know when and how to use it, than the average practitioner of 40 years' experience in those days. There is no question about it. The books that have been written upon this subject within the last few years, from those of the time of Hodge until now, make this subject much plainer. It is a very different thing from what it was. Therefore, I think this view is entirely out of place. The forceps is not the weapon of ruin described. It is not used indiscriminately and by bungling men to injure the uterus, vagina and bladder as has been described. I therefore wish to enter my protest against that particular part of the paper. I do not think that the forceps are used by the average practitioner as often as is asserted. The gentlemen who have been quoted may have used the forceps once in seven cases, but the average practitioner throughout the country does not use the forceps so frequently. I speak from observation and from information obtained from communications within the

last year. They do not use it upon the average more than once in fifteen or twenty-five cases. The distinguished author of the paper is, therefore, laboring under a mistake—an error that ought to be corrected.

Dr. Taylor, of New York.—Mr. Chairman: I rise simply to make an apology for the remarks of the author of this paper. The views that he has stated are the same that I was taught, and I think the Section will pass a vote that this is an antiquated view that was taught some 50 years ago. I do not see any difference in the views stated by Dr. Gross and those which I was taught long ago. At the same time, I do not take the view now that I did at that time.

Dr. Wathen, of Kentucky.—Mr. Chairman: Granting that the administration of chloroform and chloral to the pregnant, parturient, or puerperal woman causes anæmia of the brain, as remarked by Dr. Campbell, would not this be far less injurious than blood-letting in such cases, for that depletes the brain more than either of these remedies, causing general anæmia, so that the woman is less able to pass safely through the trying ordeal of the puerperal state. I have never seen a woman with threatened abortion, or with continued or malarial fever before labor, in which I could possibly conceive that blood-letting would be of any benefit. Blood-letting, in a robust person with an increased volume of blood, in the beginning of an attack of puerperal eclampsia, may be indicated for the purpose of preventing fatal injury to the brain until other means will control the convulsions. I cannot concur in the opinion of Dr. Gross, that the abstraction of large quantities of blood from the pregnant woman leaves her system in a better condition to pass safely through the puerperal state. That this woman, who, after parturition, needs everything that will sustain her, and enable her to recover from the puerperal condition, who cannot take large quantities of good nourishing diet that makes rich blood, whose generative organs have to go through the process of involution, and who has to provide milk to nourish her child; is in a better condition after having been profusely bled, as he advises, than one who has not been bled, is a statement to me so absurd that I believe the profession of the country will not adopt it; so pernicious is it in its influence, that I trust before adopting it the profession will consider well the consequences. [Applause].

JEWISH HYGIENE AND DIET, THE TALMUD AND VARIOUS OTHER JEWISH WRITINGS HERETOFORE UNTRANSLATED.

BY C. H. VON KLEIN, A.M., M.D., DAYTON, O.

[Read in Section of State Medicine and Hygiene of the American Medical Association, May 1884.]

We are now in the age of pride and the Niobe of nations. But when we look back even to the dark age of the Egyptians, we find that our sanitary measures are far behind any other advancements of modern civilization.