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ORIGINAL ARTICLES.

WHAT THE ANCIENTS KNEW CONCERNING OBSTETRICS AND GYNÆCOLOGY.

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Presented to the Section on Obstetrics and Gynecology of American Medical Association, June, 1883.]

A short time since I was presented by my friend Dr. Dickinson with a Latin folio edition of all the extant works of the two most valuable Greek medical compilers, Oribasius and Ætius. The book itself is some 300 years old, and in a good state of preservation—never having been read, and though published only a little over 100 years after the invention of printing, could scarcely be excelled in mechanical execution at the present day. But any value that might be attached to this is utterly lost in the priceless value of its contents.

Oribasius, a learned Greek physician of the fourth century, was court physician to the Emperor Julian, and wrote his great work, the *Hebdomekontábiblos* or *Seventy Volumes*—a compilation of all that was known of medicine, at the order of Julian, who was as remarkable for his cultivation of letters as for his hatred of the Christian religion. He also wrote an abridgment for his son Eustathius, in nine books. Of the great work some twenty-five volumes have been preserved, together with all the abridgment in nine books. All of this is in my Latin edition, turned into Latin and dedicated to Cosmo Medici, Duke of Florence, by Dr. John Baptist Rasarius of Novarensis, in 1553. The work as preserved covers pretty fully the departments of *materia medica*, anatomy, and the practice of medicine and surgery, all of which contain many articles, instructive and well calculated to dissipate any inflated ideas we may entertain that wisdom began with us, and to inspire us with veneration for those great men who at this early age had placed the healing art abreast with the most advanced thought of the day.

In gynæcology there are many really valuable and accurate articles, such as *Prolapsus Uteri*, *On Exciting the Menses*, *Fleur Albus*, *On Ulceration of the Uterus*, etc.; but the compilation of the learned Oribasius, full and valuable as it is, was written amidst

the hurry and excitement of court and camp, and lacks the fullness and accuracy of Ætius—the most learned, able, experienced and honest of all the Greek compilers, who practiced and wrote at Alexandria in the sixth century, at the time when the library in the Serapion contained at least a copy of all that was known in medicine and all other departments of human knowledge, while its dissecting rooms gave an accuracy in anatomy no where else to be obtained. And yet this great work has, I believe, never been published in any modern language, certainly it never has been in English. Had it been, it would have saved many learned assertions of modern authors concerning the knowledge of ancients, from publication.

I can not even guess why the Sydenham Society should have had the learned translator of the "Genuine Works of Hippocrates and the Extant Works of Ætius" also translate the comparatively worthless, incomplete and unreliable works of Paulus Ægineta, a Greek compiler of the seventh century, who, without ability or experience, certainly made his compilation without the aid of the Alexandrian library, and if he had any other works to compile from, than Oribasius and Ætius, certainly did not use them. A fact that leaves less regret, when we learn how bad a use he made of these, and yet this work is done in English possibly to show us how much the ancients knew of medicine, a purpose it utterly fails to accomplish. But even this would be of less consequence but for the fact that the learned translator, Dr. Adams, in his exhaustive commentaries on Paulus Ægineta, which have furnished the source from which much subsequent learned reference to the ancients has been derived—constantly does great injustice to Ætius, and thus to the world, frequently stating that Ætius agrees with his author, as though he had not lived a century before Paulus, who has stolen the article from Ætius, and through ignorance or desire to hide the real author, has done it so badly that the article has lost its value by the theft.

But scarce as are the works of Ætius, and little as they are read or quoted, they existed in the libraries of Europe, and as we shall see furnished the mine, the metals from which has been made the fortune of not a few discoveries. (?)

The works of Ætius in this edition, turned into Latin in 1512, by Dr. Janus Cornarius, Greek and Latin Professor at the Imperial city of Frankford, consist of his *Tetrabiblus*, or *Four Books*. Each book is divided into four sermons or discourses, each discourse consists of a great many chapters. The

last one of the Fourth Book of the Tetrabiblus is entitled "On the rationale of conception and parturition and diseases of women, especially those of the uterus and mamma; also of the preparation of most precious ointments, potions and perfumes." Surely, in reading this title page we might suppose the book was not of the seventh, but belonged to the nineteenth century. This fourth discourse of the Fourth Book consists of 112 chapters on Obstetrics and Gynæcology. It also begins, as all such works may be expected to, with a description of the uterus and its appendages, which we give:

"De uteri, situ, magnitudine ac forma, chap. 1.

On the situation, size and form of the uterus.

The uterus, Greek *metra*, this is called the matrix, because all life originates from it as from a mother. The same is called *hystera*, because it is situated beneath all the viscera. For the uterus is placed within the peritoneal membrane lining the abdomen and all the intestinal convolutions, between the bladder and rectum, and lies upon this nearly its entire length, and upon the bladder to near the umbilicus, where is its fundus, for the most part mounting here above the bladder. But near the part stretching to the pudenda, the bladder extends beyond the uterus by its neck. Its size is not the same in all, for the uterus is much smaller in those who are not pregnant, but larger during pregnancy, but in those who have never been pregnant the uterus long continues even less, and until near puberty it is least in those who have not arrived at venereal desires, and is always smaller in those who have never had sexual intercourse.

And then the length of the uterus in women is ordinarily from near the umbilicus quite to the vagina, and is about eleven finger-breadths, but its width extends from either side between its horns. But whatever size it may attain, all that remains, the body, and more especially the fundus, is like a bladder. But in that it has nipples which spring up, produced from either side of the fundus and stretched to the loins, it is not like a bladder. These productions, which are called horns, tend at first upward, afterwards downward, and they are a little narrowed, so that their terminations are like veins; and these narrowed parts of the horns, as flexible tubes are carried to the ovaries, which are situated by either side of the uterus, by either side of the fundus near the cornua, and through these winding canals of the horns, in congress with the male the uterus draws the semen from the ovary. But the female testicles (ovaries) are small and not round, and oblong, and composed of tender flesh, as in the male, but broad and glandular and membranous. Moreover, the uterus is attached to the bladder and rectum by interstitial fibers, and attached to the sacrum by ligaments, which are strong, fibrous and muscular. There are ligaments and appendages which are inserted into the uterus, a part of which are interwoven and platted into the body of the uterus, not a small part of which are nerves originating from the spinal cord, but a part are incremental and nutritive to the uterus itself, and made subservient to the foetus. Such are the arteries and

veins, for from the vena cava, which runs along the spine from the convex part of the liver, and from the great artery which lies upon it, two nerves and two arteries originate, indeed on either side a vein and an artery, and these four vessels are distributed to the uterus, but, before being inserted into this, give off branches to the ovaries, and afterwards are inserted into the body of the uterus and interwoven with its substance, and from these the menstrual blood in the uterus is derived. But there are other veins and arteries inserted into the uterus, a part of these are sent to the ovaries and a part extended to the neck. And, in fact, the body of the uterus consists of two membranes, an external, which is serous, and an internal, which is vascular; an external which is simple and one, but the internal is double; so that if we desired to peel it off there is seen to be two uteri (cavity of body and cervix) under one and the same membrane. Again, the neck of the uterus is muscular, and composed of hard and cartilaginous flesh, and always harder at its termination, and as time advances becomes cartilaginous, so much so in those who have had many children, and in old women, as as to resemble to the touch the upper part of the throat, and there is a meatus in the neck through which the menstrual blood is discharged and the woman receives the male semen, and through which the foetus also passes, for, wonderful to relate, this opening is distended to so great a magnitude at this time. For the remainder of the time it is only sufficient to admit the point of a sound or a substance a little larger, and when the woman is pregnant it is closed so that it will not admit anything. But at the time when the foetus is discharged from the womb the pains of parturition distend it to so great an extent that, wonderful to hear, the whole child passes through it. The neck ends and is terminated at the vagina or at the pudenda; moreover, the length of the vagina in women of mature age is about six finger breadths, nevertheless in labor and coitus it becomes shorter; doubtless in these states the neck of the uterus extends itself. During girlhood the vagina is soft and delicate, but in old women and in those who have had many children it becomes hard and like cartilage, because from the frequent congress and the forcible distention of labor it is hardened. It is also hardened by the presence of the menses, and not less by the abundant flow of acrid humors, by which hard ulcers and fistulae are produced. And then at the time of menstruation the uterus is thickened and swollen, at other times it is thinner and contracted. It is also thicker and larger in those who have had many children, but thinner (smaller) in those who have never been pregnant.

It is also thickened from the first day of conception. But when the foetus is developed, and during labor, it becomes thinnest, but thinned as a bladder becomes by being distended with air, its thickness being drawn out in its long diameter; and this much have we said as to the situation, size and shape of the uterus."

Commentary.—This remarkable description of the uterus is only wanting in our modern more distinct divisions of a subject and our more concise terms of

expression to give it a fitting place in a work on obstetrics and gynecology of the eighteenth century. The author is not wanting in anatomical knowledge, but here, as in many other instances, the facts, though clearly known, are imperfectly communicated, for want of concise terms to express them.

The statement that the womb is called matrix because all life originates from it as from a mother, and that it is called hystera because placed under all the viscera, are facts worth stating and perhaps not known to all. The length of the uterus given is during pregnancy, and is true. The description of the oviducts and their uses left nothing for Fallopius to discover, this, together with his description of the uterine blood-vessels and their uses, of themselves, refute the assertion made and believed, that the ancients had no physiology. Now, how did *Ætius* know what modern science has so lately learned,—that the extremities of the Fallopian tubes were applied to the ovaries during ovarian orgasm, and that through them passes to the uterus from the ovaries whatever the female contributed to the reproduction of the species? and how did he know that the mouth of the uterus in the non-pregnant condition would only admit the point of a sound if they had no uterine sound, or only used it, as Dr. J. G. Simpson supposes, as a therapeutical agent? and how could he know that during pregnancy the canal was closed against even this? or that the uterus was succulent and thickened during menstruation? or that it became intumescent from the first day of conception? Such knowledge is in advance of that at the beginning of the nineteenth century, and proves conclusively that he possessed a vast fund of accurate anatomical and physiological knowledge not given here, not given because not compatible with the nature and subject of the chapter. After reading this description we suppose no one will again assert that the ancients did not know or did not discriminate the os uteri from the vagina! Surely *Ætius* did not suppose that the os vaginæ of a woman bearing children would only admit the point of a sound, and that after conception it would not admit even this?

“On the assistance that should be given those in whom conception is hazardous.

“Some women when they conceive are endangered in parturition, either from the smallness of the uterus, so that the foetus cannot escape from it, or from narrowness of its neck, or because a tumor (polypus) or some such like substance is developed within its entrance, which complicates the labor, and certainly such are best served, if they are entirely guarded against parturition; and should they conceive, it is safer to produce an abortion than to dissect and remove the foetus at term. For these reasons we must proceed from the order of destroying the foetus, to that of producing sterility. For that which induces sterility, differs from that which destroys the child, for it prevents conception, this done it kills and expels it. Therefore as a woman must not conceive she must first take heed not to have intercourse with the male at the time when conception is most likely to take place, namely, at the beginning and termination of the menstrual flow, and then in the act of

coitus when the male semen is being ejected she must hold her breath, that the semen may not be carried within the uterine cavity, and immediately rise up and placing herself upon her knees provoke sneezing, and carefully wipe the pudenda. To prevent conception also the mouth of the womb may be smeared over with honey, or with opobalsom, or with cedar oil, either by itself, or mixed with white lead. In like manner she may use white lead mixed with liquid myrtle cerate or with alum water, or galbano with wine, also of a like nature are cold and astringents applied to the meatus, just before coitus, as they close the mouth of the uterus and prevent the semen penetrating within its cavity. But also the excitation of heat not only drives the semen of the male from the uterus, but draws and extracts the remainder of the tumors. But those things which follow prevent conception and induce sterility.”

Commentary.—Here follows in the next chapter a long text of very efficient suppositories, washes and drinks for the prevention of conception, by which we are assured that the women of ancient Greece and Rome were often as anxious to escape conception as are some of those of New York and St. Louis, and also that they were provided with perhaps quite as efficient means as are those of the present day. Again in the next chapter, “On the Production of Abortion,” which is credited to *Asparia* (by the way, there never was a female writer on midwifery by this name), shows that this accursed art had been brought to great perfection 2,000 years ago, and if less efficient than some of those of the present day, it was only because less dangerous.

“Pariendi difficultatis causæ.

“On the causes of difficult labor.”

“Difficult labor happens from various causes, from that which affects the body or the mind of the puerpera, or from weakness of both at the same time; either from smallness of the uterus, or because of narrowness of the meatus, also those who, on account of age or shortness of stature generally have the uterus corresponding with the rest of the body. It is possible for difficult parturition to arise either from obliquity of the neck of the uterus, or from the growth of flesh (polypus) to the neck of the same, or from its mouth, or from inflammation, or disease or induration of the same parts, or because the foetus cannot rupture its surrounding membranes, or because the water collected in the uterus is discharged prematurely, and at the time of labor the parts being without the water, are dry; for the waters are of the greatest service at this time, as they give easy passage to the child. Or because the puerpera has a stone in the bladder, which by compressing the neck of the uterus renders labor difficult, or it may be caused by grossness or fatness of the pregnant woman. Also, the labor may be rendered difficult by the two compact union of the pubic bones, so that they cannot dilate during labor; for the pubic bones in women are not connected as in men, alternately (serrated suleres), but are jointed by strong ligaments. The same difficulty in parturition is caused by a too great cavity of the loins (promontory of sacrum) compressing the uterus, or from the great quantity of excre-

ments retained in the rectum or bladder. Sometimes, also, the parturient patient is debilitated from age. Others begin to bear down during the first stage of labor, through ignorance, or on account of inexperience of how properly to prepare the body, or because they have not yet attained the age or strength of womanhood, but to this time have remained as girls. Difficult labor may be produced when all or a part of the child is of extraordinary size, or the head or the thorax, or the abdomen is of undue proportion; or when the foetus, from weakness, is not able by its leaps and movements to assist its mother; or when there are two or three children, or when twins advance and both suddenly engage in the neck of the uterus together; or when the foetus, having perished, can give no assistance in the labor, or when being dead it is swollen; or lies præternatural, for the position of the presenting foetus is natural when it advances so that its head is straight, with the hands extended upon either thigh, but præternatural when the head is turned to either the right or left side of the uterus, or when one or both hands is prolapsed and the legs are separated from each other. Yet less is predicted of the rest of the form in those which present by the feet, especially if they advance with a hand extended upon either thigh. But the foetus which presents with one foot prolapsed, while the other is detained within the uterus, or doubled up resting upon some part of the uterus, requires correction, just as do those who have the hand extended. Those which present obliquely are less objectionable, and this may happen in three ways, for either one or the other side of the foetus presents or the belly; but the presentation of the side is easiest, for then the midwife, by introducing her hand, straightens either the feet or the head of the child. And then those that present double are in the worst position, more especially if the presentation is by the pelvis. But there are three ways in which they may be doubled, for either the head and legs, or the abdomen may be in the mouth of the womb; but it is preferable for it to be on the abdomen, for these are dissected by us, and after removing the internal parts the pieces come down and the shape is readily changed.

"In like manner parturition may become difficult if the membranes, either because of their thickness do not break, or because of their thinness rupture too soon; moreover, difficult labor may arise from external causes, for the meatus may be contracted if the season of the year is cold and stormy, or it may be relaxed by the heat of summer. All of these difficulties occurring to women in labor, it behoves the physician to inquire of the midwife, and not rashly to resort to surgery, nor should the midwife be permitted to continue to dilate the uterus for any undue length of time. If therefore the labor is rendered difficult by the lumbar cavity (projecting sacral promontory), the patient should be placed in a chair, with the knees bent forward, that the uterus may lie within its neck straight; the fat and fleshy are placed in the same manner. But if the difficulty is because of some narrowing or stupor, or contraction, assistance must be given by laxative warm hip baths or fumigation, such also as a warm room, and inserting of both ac-

tual and potential warm oil (pungent oils or those warmed), and also by the application of ointment and poultices of the same property. Relaxation may also be produced by baths, and, if not forbidden by fever or some other cause, by carrying the bed of the patient into a warm room. Some have also advised strong shaking in this condition. But for those who are prostrated by weakness in their labor, we must produce firmness by strengthening, condensing, and more especially astringent remedies, such as sprinkling them, and the use of hip baths of decoctions of myrtle, vine leaves, or roses, or aromatic decoctions with vinegar, and ointments from wine and rose oil cold. But if the difficult labor is caused by the præternatural form of the foetus itself, it must be reduced to the natural conditions by such means as we are able to use, but if a foot or hand present, we must not draw upon it, as the greater impaction would be produced thereby, or it might be even dislocated or broken, but with a finger under the shoulder or thigh we change the position of the foetus and bring down the presentation in a more favorable manner. But if at the same time with contraction, the entire condition of the foetus is unfavorable, it is first lifted up from the os to the upper part of the womb, and afterward it is brought down again to the mouth of the womb straight, and that this may be done gently, safely, and without contusion, constant anointing the parts with oil must be observed, for upon this depends the safety of the child and the mother, and the uterus also remains uninjured. And if the mouth of the uterus remains closed, it must be softened and relaxed by fat ointments. But if the difficulty should be on account of a stone in the bladder, we must push this out of the neck of the bladder with a catheter—and if the bladder is distended with urine, it must be emptied with a catheter, and if the rectum should be loaded with excrements, they must be removed by a clyster; and if the woman should not be able to accomplish her delivery by reason of inflammation, or abscess, or ulcer, loose tumor (fibroid) or induration, she must be relieved from each of these by suitable treatment. But if the labor should become difficult by the springing up of flesh (polypus) in the neck of the uterus, or from some kind of congenital solidity of the membranes, as happens in imperforate women, whatever may be the nature of such impediment, we must cut it away; and if from the membranes surrounding the foetus being too solid, so that is not able to rupture them, they must be cut open. But when from the too early discharge of the waters, by which the parts, at the time of labor, are left dry, we must inject into the vagina the white of eggs, with decoctions of mallows, or warm barley water, and if smallness of the uterus is the cause of the difficulty, the parts must be anointed with some kind of fat, also fomentations must be used, and the os uteri dilated with the finger, and the foetus forcibly extracted; but if not successful in this, it must be dissected. This is done more especially when the foetus is too large or dead. That the foetus is dead we may know by the cessation of movements and from its appearing cold to the touch. And if there are twins or triplets obstructing the mouth of the uterus, we should lift the

others to the fundus of the uterus, and first deliver that one which appears nearest delivered. But if the difficult labor is caused by the great size of the head or thorax, or belly, all that is necessary is to open these. Moreover, the time for placing the woman in chair is when the mouth of the womb is open to the touch, and the membranes ready to rupture."

Commentary.—This long and interesting chapter is taken from Philumenus, a distinguished surgeon and gynæcologist of the 2d century. The next chapter, "On the Dissection and Extraction of the Fœtus," is credited to Philumenus, and constantly repeats the directions in this, showing conclusively that this is from the same author. We are then given here, not the opinions and practice of Ætius of the 6th century, but carried back to the state of obstetrical knowledge some 1,800 years ago. While some of the statements of the author are obscure or fanciful, particularly as to the position of the fœtus, which they really did not understand—and even Ambrose Pare candidly admitted that, though he had labored to determine, he did not know what was the natural position of the fœtus—yet it is exhaustive in the relation of actual causes of difficult labor, and fertile in his resources in removal of the difficulty, so much so that all Europe could not have duplicated this chapter in better the days of Smellie.

The causes of difficult labor are very properly stated to be dependent upon pathological states of the mother or that of the child. Of the mother the causes may be either physical or mental, and this is true. Of the pathological conditions of the mother he relates, smallness of the uterus (hypothetical) narrowness of the os (rigidity), smallness of stature (true), age, either too old or too young (true), obliquity of the uterus (beautifully true), the growth of flesh in the neck or os (polypus or fibrous tumor, true), inflammatory states (true), because cannot rupture the membranes (firmness of membranes cause delay), too early discharge of water, (true in fact, and why?), stone in bladder (true), too fat, too fleshy (true), anchylosis of pubic bones, (true), projecting sacral promontory (true), loaded rectum or bladder (true), bearing down in first stage (true), excessive foetal development (true), multiple pregnancy (true), locking of twins (true), dead and intumescent fœtus (true), praeternatural positions (true), head bent upon neck (true). The means indicated for meeting these various causes of difficult labor, either caused by mother or child are often just such as a scientific obstetrician should give at the present day. The time for placing the woman in the chair is just that which we observe at the present time—to do so previous to this time would be to unnecessarily confine the patient, to defer it longer would be hazardous.

The too firm union of the pelvic bones so that they cannot dilate, or separate, is a question we are yet discussing. I, however, fully agree with Philumenus.

"Cancra Chirurgia. Leonidæ."

"On the surgical treatment of cancer, by Leonides.

"In the treatment of those cancers that arise upon the breast I (says Leonides), rely entirely upon surgery, which is done thus: "I make the patient lie

upon her back, then I cut upon the sound part of the breast, above the cancer, and burn in the incision with a red hot iron until a crust is formed sufficient to arrest the flow of blood; I immediately incise again and dissect up from the deepest part of the mammæ, and again burn the incised parts, and after this I repeat the cutting following it with the red hot iron sufficient to arrest the hæmorrhage. The first burning is for the arrest of the hæmorrhage, but afterwards the burning is for the removal of every vestige of diseased tissue. But often also when the indurated cancerous tumor is situated less deep in the breast, the entire operation is performed without the cautery, for in such cases it is sufficient to amputate to the sound parts, as there is no danger from hæmorrhage.

Commentary.—This chapter on the surgical treatment of cancer of the breast, follows that description of cancer of the breast by the two great gynæcologists of the first century, Archigines and Leonides, and shows that with all our boasted knowledge we have not improved upon the skill of these immortal surgeons of 1,800 years ago. Indeed, the operation here given is better than the more artistic one of the present day, and with chloroform it might be relieved of the hideous suffering then inflicted. But in operating for cancer, as life or death hangs upon the perfection of the removal of the disease—even this is of but little moment. Some may ask, Why did they not apply ligatures to the bleeding vessels instead of burning, for the arrest of hæmorrhages? This would be answered with the statement that the ligature is of modern invention or discovery, for which we are indebted to the genius of Ambrose Pare. This is not true, as these surgeons were just as familiar with the use of the ligature to bleeding vessels as Dr. Gross or Billroth; and if any surgeons from the days of Galen, second century, to that of Ambrose Pare were ignorant of them, it was because they had not done what Pare did, read the ancients. *En passant*, we may say that Hunter discovered how to cure aneurism from Ætius. They did not apply the ligature, because the theory was that cancer was caused by black blood, and this should be permitted to run out to as great an extent as might be compatible with the safety of the patient; while, therefore, the first burning was for the arrest of the hæmorrhage, the last was for the removal of any vestige of the disease—vestiges which so constantly escape the eye and knife in our artistic operation, that one of our distinguished surgeons has nearly ceased to advise operation in this disease.

"De reclinatione, aversione æ recursu uteri Aspasia.

"On lateroversion, anteversion, and retroversion of the uterus, by Aspasia.

"In suppression of the menses, from necessity, there is repletion of the veins and arteries tending to the uterus; for the blood which runs quite to the mouths of the vessels, but is not able to pass into the uterine tissue, either because from its too great thickness it impinges against their mouths and coagulates, or because the mouths themselves are closed and their passage obstructed so that the veins, filled with fluid, are distended, and the appendages in the vicinity of

the uterus are swollen, by which distension the uterus is withdrawn; and if the drawing is equal from both sides, the lateroversion or retroversion of the uterus is equal (no displacement), but if the traction is made greater in one part than another, as is caused by the viscera, namely—the liver or the spleen, the distended veins of which overflowing with blood, draw the uterus from these parts, the veins of the liver from the right, those of the spleen from the left, as either may be more full. But to whatever part the uterus is inclined, we may know by touching with the finger and by the following signs. For if it is inclined obliquely, distension, pain, coldness, impediment, and numbness of the near thigh will disclose it; sometimes also dryness of the same groin, followed by weakness in resting upon that limb, and difficult locomotion. But if it is inclined backward (retroverted or retroflexed), or downward (prolapsed), motion of either leg is followed by numbness and difficulty. Often like movements well nigh intercepted, and violent pains harass the patient; the bowel is likewise constipated, nor does it admit an enema unless the patient is placed upon her knees. The flatus is also retained, and pains are excited at the anus, especially if the displacement is against the anus (retroflexion); and if it is turned to the pubis (anteverted), the hypochondrium and pubis are distended, and pains invade the same parts; likewise, sometimes the urine is retained in this form of displacement. Therefore, in whatever manner the uterus shall have been displaced, it ought to be treated during the exacerbation in the same manner as inflammation. But in the remission and decline of the disease a more mild treatment may be used, but with the disease persevering we must use such things as have the property of drawing from above (cathartics), and of changing the habit of the body (alteratives), and indeed we should treat displacement against the anus (retroversion) thus: First, we should direct the midwife to lift up the uterus by introducing her finger into the anus; then she may place in the anus a suppository four fingerbreadths in length, prepared from galbanum and wax, and to the extremity of which a thread has been attached, for its more ready removal; or wool with castor diluted with water, or dry bitumen, or liquid pitch may be used in a similar manner. But on the following day tepid oil of irini or lilies may be thrown into the vagina and rectum, and the parts should be fomented with some aromatic decoctions, either horehound or fleabone, and the vagina may be washed with the same; afterwards rose cerate may be used. But if the drawing back inclines obliquely (retroflexed), first the same fomentations may be used; then the midwife, with a sound introduced with the finger, straightens the neck of the uterus; the patient is then placed in the supine position, or on the opposite side to the one affected. Moreover, a mild and aperient suppository may be used, and some of the formerly named oils should be thrown into the vagina, and washed with wine and rose oil, or flaxseed emulsion prepared with wax should be placed upon the pubis, and we may give to drink musk, anise or cumen or nigella, peonyroot or gentian or myrrh, or carrot seed, or heartworth, or elecampane from vinegar and honey.

Likewise the same may be done in violent attacks of pains in the uterus, not each single and by itself, but also united together. Also, the woman should be laid with her head elevated; and if the uterus, after being properly replaced, is again drawn back, some fetid substance should be immediately placed to the nose and sneezing excited. And if the urine is retained, it should be drawn off with a catheter. And if the paroxysm should be relieved by this, there is quiet. Again, for the exacerbation of the disease, if the patient is young and plethoric we may consider the propriety of extracting blood from the arm. We may then give emmenagogue drinks and use the milder pessaries.

Commentary.—This remarkable chapter proves conclusively that the ancients not only recognized the different kinds of uterine displacements, but were scarcely less apt than ourselves in remedying them, only wanting permanent supports that have become so fashionable among modern gynecologists, to render their treatment as efficient as that of the present day. But if they were wanting in the pessary mania of the present day, whereby each and every local operator, through some lucky twist or screw of some strange device, called uterine support, hopes to attain immortality—their patients were gainers. They also, as is seen, used the uterine sound for displacement as we do. And yet the uterine sound is a modern invention? Nothing equal to this chapter was again written for more than 1,500 years.

The directions given to the midwife to do this or that prove that it was not written by a midwife, but by a physician, most probably about the time of Hippocrates, when Aspasia, the celebrated mistress of Pericles, had made the name famous.

“De uteri abscessus Archigenis.”

“On uterine (pelvic) abscess, by Archigenes.”

“The formation of an abscess in the uterus, as in other parts of the body, is preceded by inflammation. First, therefore, the signs of inflammation are apparent, then, about the time the pus is formed, the pains are increased and a fever with rigors, most violent in the evening, a tumor is developed, and the pains become more pungent; sometimes the urine and sometimes the feces are retained, or both at the same time, but the seat of the pain will indicate the locality of the affection. Therefore, if it is not possible to discuss it, we must use such treatment as hastens suppuration. For this purpose we apply flaxseed meal, boiled figs, althæ root and turpentine made into a poultice. These poultices are applied to the hypochondrium and loins, while the vagina is constantly fomented by means of a sponge and vapors, by means of a reed inserted in a perforated covered vessel and carried into the vagina. Frequent hip baths should be used, composed of decoctions of such things as have drawing properties, such as pennyroyal, horehound, laurel sage, wormwood, dittany or centaury, but in cases where the patient is afflicted with more violent pain, we should apply poppy heads boiled, bruised, and made into a poultice, also raw figs rubbed up in a mortar with pine resin, turpentine, and a portion of niter may be applied. We may also use a suppository prepared thus: **R** The fleshy pulp of figs, goose grease, oil of irini

aa3ij; turpentine, 3jss; rue, 3jij; unguent iridis nitri, aa3iv; raisins may be substituted for the figs. Wool may be made into a pessary, dipped in warm oil of irini or cypress and introduced into the vagina; but the most efficient remedy for this purpose is a composition called Cyphoides, and previously described when treating of abscess of the liver, and likewise enneapharmacum, a preparation used for indurations, also poultices of goldcup and other substances of a like nature, also pessaries may be placed in the vagina saturated with oil of lilies or telis. Likewise the lower abdomen and pubis should be constantly fomented with some select decoction. Should the abscess break, if the pus escapes into the bladder, and is discharged with the urine, milk drinks and cucumber seed decoctions are prescribed, and cataplasms are used, composed of fragrant emollient substances. But if the pus passes into the rectum, and is discharged with the fæces, or by itself, we must throw up the bowels enemas of decoctions of pomegranate rind or mastich, but if it breaks into the vagina and the pus is laudable, injections of rose oil or tetrapharmacum with fresh butter and rose oil may be used, and the parts washed with decoctions of roses or mastich. But if a thin and fetid ichor like that from noma or phagedenic ulcer is discharged, more astringent injections must be used, such as are the decoctions of myrtle berries, palm, mastich and pomegranate rind. Moreover, if after the discharge of the humor, the inflammation should continue, we must persevere also in the use of the poultices and hip baths formerly described, and if the matter discharged is unequal, fomentations and hip baths of decoctions of horehound, vetches or mastich must be used, but the parts must be washed with barley water, with honey and rose oil added; at the same time the os uteri and anus should be anointed with rose cerate or butter, to which is added some dross of tin or lead, or foam of silver (lithrage), which may be mixed with breast milk, also lead water may be used. But if the discharge should become very offensive, the vagina should be washed out with wine and honey, and we must continue in the use of these until the cure is perfected.

“Abscessus oris uteri chirugia.”

“On the surgical treatment of abscesses of the womb (pelvic abscess).”

“If the abscess is situated about the mouth of the womb, so that surgical treatment can be used, we should not be in haste to open it too early, but wait until the disease is perfected by the greater increase of the inflammation, whereby the parts containing the pus are thinned. And then the woman is placed supine in a chair, with her legs drawn up upon the abdomen and her thighs separated, with her arms brought down under the legs and properly secured by a cord passing over her neck; she is then placed before a clear light, when the surgeon, seated by her right side, separates the pudenda with a speculum (dioptra) suited to the age of the patient, and makes an examination, and with a sound measures the length of the vagina so that he may not compress the uterus with the stem of a speculum longer than the vagina. And if it is found that the stem is greater than the vagina, rolls of wool should be placed upon

the labia or sides of the pudenda, so that the speculum itself is made firmer. The stem should be introduced with the screw turned to the upper part; then, while the surgeon holds the speculum, the screw is turned by an assistant, so that by separating the blades the vagina is distended. When the abscess is exposed, if it is thin or soft to the touch, its apex should be opened with a scalpel or lancet, and after the pus is discharged a thin piece of lint dipped in rose oil is placed in the incision, or rather without the incision, in the vagina, without compression, but outside the labia pudenda, to the pubis and loins, washed wool, clean or saturated with oil, is placed. Then, on the third day, the patient is seated in a hip bath of warm water and oil, or a decoction of mallows, and having cleaned the parts, we introduce gently into the fissure of the incision lint spread with tetrapharmacum, either by itself or mixed with honey, but the tetrapharmacum should be diluted with butter or rose oil, and a poultice is kept applied externally until the abscess is free from inflammation or discharge. But, if there is difficulty in cleansing it, it may be washed by means of an ear syringe with decoction of iridis, and an ointment prepared from calomine or lardano, or burnt barley diluted with rose oil may be used until cicatrization is perfected. But if the abscess is within the uterus surgical treatment must not be resorted to, but the treatment previously related is to be pursued.

Commentary.—These excellent chapters on pelvic abscess by the distinguished gynæcologist of the first century, Archigenes, would do credit to any author now living, and for excellence of treatment, both medical and surgical, require no improvement. First, the accurate description of the nature, symptoms, and termination of the disease is followed by the medical treatment with poultices, fomentations, fumigations, and injections with wine, oil and water, into the vagina and rectum, with hip baths, astringent and antiseptic washes, with an accurate description of the most common discharge of the pus—into the bladder, into the rectum, and into the vagina—with a most appropriate treatment for each of these conditions, varied according to the various conditions of the abscess and its discharges. First, the surgical treatment, which opens with an aphorism that should be remembered, that the cure is not facilitated by too prompt a resort to surgery, but that we should wait for the abscess to become perfected, when it should be opened with a scalpel or lancet, and lint smeared with rose cerate introduced into the incision. The parts kept clean with injections by means of an ear syringe and aromatic and astringent washes. I candidly confess I could not improve upon the treatment. The next chapter treats of those cases where the abscess breaks into the abdominal cavity, which leaves nothing to be discovered by later researches. But what is of perhaps the greatest interest, and the one to which we wish to call especial attention, is the mention of the dioptra or speculum vaginæ, and the uses of the uterine sound as a diagnostic means, and while not intending to describe an instrument in common use, and with which he evidently supposed every one familiar—yet in his description of the

manner of using it, he has done so so clearly as to leave no tears for the arduous labors of Racemier and other modern geniuses in discovering or inventing it, while the uses made of the sound in this and other instances greatly lessen the labors of Sir J. Y. Simpson in learning how to apply it. To show the great ignorance even now prevailing as to the history of the speculum vaginae, perhaps no better instances could be given than the statement of the learned Professor of Obstetrics at Glasgow, in the last edition of his most excellent work on midwifery, that the first indication of the speculum vaginae is given by Aëtius in a chapter, "De Foetus Exsectione ac Extractione," which he takes from Philumenus. Now, there is no mention made of the dioptra in this chapter, and the instrument used for separating the external parts were, doubtless, just such as we use at the present day for a like purpose—bent spatulæ. It is but fair to Professor Lieshman to state that he does not say the speculum was used here, but first indicated; by which we are evidently to understand that the instrument itself was not yet known. Philumenus was, we believe, a writer of the second century; while the speculum was, as we have seen, not only indicated but of common use in the first century—no doubt, centuries earlier.

"De uteri obturatione.

"On obturation of the uterus.

"Obstruction about the mouth or neck of the womb may be either because of previous ulceration or from inflammatory induration by which the places are so greatly narrowed that they do not sufficiently admit the semen, or this being admitted is not retained, for from the callous hardness the uterus cannot contract; sometimes, however, the semen being admitted and retained within the narrowed os, a foetus is begotten, but such conception becomes the cause of the pregnant woman's death, as from the extensive narrowing of the places the foetus can not escape. For this condition hip baths of oil and water and decoctions of foenugreek are administered, and the parts relaxed by cerates and emollient pessaries, prepared from œsypus, turpentine and niter. And when the parts are soft to the touch we should, for its sufficient dilatation, introduce a sponge tent (spongiam siccam) with a thread attached, and when this is removed, we may introduce a larger one, and for this reason it behooves us to have prepared many and different sized sponge tents. We should smear over the sponge tents with the following ointment: **R** Red orpiment, dry alum aa ʒj; yellow orpiment ʒiij; rub all up with honey and paint over the sponge tents before inserting. Wherefore if it is seen that the distension of the sponge tent has not sufficiently opened the place and inflammation has been produced, the tents may be covered with the following ointment: **R** Iris ʒij; goose grease, turpentine, frankincense, oil of irini, wax, aa ʒj; first the iris, then the frankincense must be reduced to a fine powder, and then sifted; then the turpentine, goose grease, and wax with the liquid oil are added and all united together; then when the inflammation has subsided and the place is open the sponges may be covered with cerate, prepared from rose oil and

goose grease. The use of which is continued until the parts are cicatrized, and the places made somewhat firm.

Commentary.—This chapter and the following one on imperforate uterus, is also from the distinguished gynæcologist Archigenes of the first century, and both the causes, narrowing from inflammatory induration and ulceration; and the effects, sterility, just such as are met with and given at the present day, while the treatment is just such as is daily practiced without improvement, while the display of this surgeon's gynæcological bag, with its marvelously perfect and varied sponge tents with strings attached for their more ready removal, is calculated to gladden us, at the same time to humble our vanity, that we have just now arrived at a point where he left off 1,800 years ago. Sponge tents in great quantities and of different sizes—and when the dilatation of one failed to open the part sufficiently, the introduction of a thicker one, and when by persistence in their use inflammation was excited, antiseptic preparations until inflammation has subsided, is just what we are now doing, and yet sponge tents are of modern origin, and owe their invention to the fecund brain of Sir J. Y. Simpson. How could such knowledge have been forgotten? Of course Simpson learned their use from the very chapters I am now quoting.

"De utera non perforato.

"On imperforation of the genital canal.

"Some women have by nature, (congenital), an imperfect genital canal; of this there are three kinds, for in some the obstruction is from a membrane or flesh springing up within the pudenda itself, or from the sides of the labia; in others it is in the vagina; in others the same obstruction is about the mouth of the uterus itself. Wherefore, to cure those in whom the membrane exists in the labia pudenda, we place them in the supine position, with their legs properly placed and their thighs separated, and dissect out the obstructing membrane with a scalpel until the shape of the pudenda has attained natural dimensions; after this we fill the divided section with a roll of lint, and fasten it there, then for the cure of the suppuration, we first apply poultices for several days, then we use lint saturated with rose cerate, and if, after the division, we discover the sides of the pudenda to be united by their fleshy parts, we break them up again, and dilate them by lint tents, and use the same treatment as before. The woman, after the operation, is placed upon her back with a pillow between her thighs until cicatrization is completed, but if while the external parts of the pudenda are open, the vagina is obstructed by the development of flesh in the place, so as to leave only a narrow opening, the woman being placed in the same position, we introduce a sound into the neck of the uterus for greater safety, that we may not through error, make the section too high, and thus we dissect within the places indicated by the sound, with a broad spatula, until it is seen that the vagina is according to nature, then the dissected sides of the flesh being distended with a vulsella, we cut around to a quadrangular shape. We then stand the woman upright that the fluids collected in the vagina may readily flow away. But when

this has been done sufficiently the patient is placed back in bed, as in the first position. We then place in the divided section a roll of lint wet with wine and oil, and to the extremity of which a thread is attached for its more ready removal, then, having properly bandaged the parts, we enjoin quiet; then on the following day we wash the parts with oil and honey, and a roll of lint dipped in medicine for suppuration is placed in the vagina, and when the parts are cicatrized a tin tube is introduced and secured in place until the parts are firm; but if the parts again unite together, so that the os uteri is again closed, I introduce a sponge tent until hardness has been induced; but if the membrane obstructs the mouth of the uterus itself, the woman being placed in the same position, and the vagina distended by the introduction of a speculum, the membrane is seized by a vulsella and extended and twisted until it is all bound together in a cord, when it is cut off with a broad spatula, and sprinkled over with a preparation of dry flowers, and a roll of lint wrapped with a thread is introduced and the same treatment pursued as heretofore given. When any of the membrane may have been left, the cure may be completed with flowers, or with a medicine called psaro. For cleansing the parts lint dipped in this preparation may be used: wax, turpentine, goose grease, aa ζ ij, iridis, frankincense, aa ζ j, saffron ζ ij, oil of irinis ζ xvj; rub up the iridium, saffron and frankincense with a pestle and mix with the liquids until liquified. But the speculum must be constantly used and the cavity not permitted to fill up with granulations, which the following preparation will prevent: \mathcal{R} Scales of copper rust, rust of copper, frankincense bark, aa ζ ij, ground up, united and used; or copper rust and scales with lead water, may be mixed and used. But the use of sponge tents must not be omitted till hardness of the sides has been induced, also the introduction of the tin tube is to be continued.

Commentary.—Again this chapter from *Ætius* is evidently from the Marion Sims of ancient gynæcologists, and is manifestly only a fragment of a "Treatise on Operations upon the Vagina, by Archigenes." The first obstruction is an obturator hymen, which is properly treated; the next is an imperfect vagina in which Amussat's operation for the formation of an artificial vagina is anticipated by 1,800 years. The difficulties of preventing the parts again uniting and the canal again contracting, are fully appreciated and very properly treated. Sims' vaginal dilator is used. It is thus seen that there is nothing new under the sun, and we, with all our boasted knowledge, are only now approaching the wonderful gynæcological knowledge of the ancients.