

is simply blind empiricism. With it, our diagnosis becomes absolutely certain, and our treatment, at least, rational. What, then, are the first steps in this investigation? How can we begin? Where shall we begin? Now, as it is upon this very point that I have been so stigmatized, I will tell you exactly how I manage this delicate affair.

Given a case of sterility for examination, the physician examines the state of the uterus and its appendages. His patient may have a frightful dysmenorrhœa, a flexed cervix, a contracted cervical canal, some malposition, a polypus, a fibroid, or something that would possibly prevent the passage of the semen to the cavity of the uterus. He may feel convinced, in his own mind, that conception cannot take place unless some surgical operation be performed—perhaps incision of the cervix uteri. This operation is usually done to permit the passage of the semen into the uterine cavity. But in this, or in any case, what right have we to say that the semen does not or cannot pass into the cavity of the uterus? We must not take it for granted that it does not, simply because the os barely admitted a small sized probe; and we know very well that spermatozoa now and then pass along the Fallopian tubes, which ordinarily admit a bristle. If the semen enter the cervical canal, we may lay it down as a rule, that a dilatation of the cervix by incision, or otherwise, is not necessary; but if it do not, it may be necessary. We may perform any rational operation for the relief of suffering, and for the restoration of health; but I insist that we have no right to perform any operation, or to institute any treatment whatever, solely with the view of the cure of the sterile condition, till we have first settled the three propositions, above laid down, touching the presence and viability of the spermatozoa. To find out all at once, and with the least delay and trouble, I usually say to the husband or wife, as it may be, "It is very important, before instituting any treatment, to be sure that the seminal fluid enters the neck of the womb, for without this conception is impossible. We must also ascertain if the uterine secretions kill the semen; if so, a certain treatment will be necessary. If you will, then, send your wife here, or come with her any day, five or six hours after coition, it will be easy to settle these points at once." In nineteen cases out of twenty, the wife presents herself the next day. The speculum is introduced (and when I say the speculum, I always mean the one that bears my name,) and some vaginal mucus is removed by the syringe, and placed on an object-glass. Then some cervical mucus is drawn out and placed on another object-glass. These two specimens are then examined under the microscope. If we find spermatozoa, well and good; but if we find none, neither in the vaginal, nor cervical mucus, our fears are at once aroused. What then is to be done? I simply say that I am not quite satisfied with the examination, and would like to see the wife again, at some future time, under the same circumstances. But, suppose we find no spermatozoa on this second examination? Then two questions immediately arise: either, that there are no spermatozoa, or that the semen has all passed off before the case came under observation. Sometimes the semen is all thrown off by the vagina, and then it would not do to pronounce the husband

sterile till we are sure of a specimen of his semen, for investigation. If I fail to satisfy myself on this point, I then explain the possibility of the semen all passing off, in the act of rising and dressing, and show the absolute necessity of making the examination half an hour or so after coition, and before the erect posture is assumed. When the subject is presented in this plain, practical manner, and treated seriously, no man or woman of sense could oppose it; and with me, it has never, in a single instance, been objected to. When I am sent for to make the examination, if I find in the vagina a fluid with the characteristic seminal odor, I am satisfied with the microscopic examination. I have never, in but two instances, been compelled to resort to Mr. Curling's plan, of asking the man to squeeze a drop of mucus from the urethra, on to a bit of glass, immediately after sexual intercourse. But as this is sometimes necessary, it is well to remember it.

If we eventually find that the semen contains no spermatozoa, then all uterine treatment is at an end. But if we are at last satisfied that it contains spermatozoa, then we must determine if these enter the cervix uteri, and if so, do they there find a fluid favourable to their existence alive? And all this can be done only by the microscope.

The question of the entrance of the semen into the cervical canal, and of the effect of its secretion upon the spermatozoa, can be fully and satisfactorily ascertained only during a very brief period. We are sure to make a mistake if the microscopic examination be made just before the expected return of the menses; and why? Because there is always, a certain amount of fullness of the uterus—of engorgement, so to speak—which precedes the menstrual flow; and the cervical canal may not admit the semen from mere turgescence of its walls. Besides, at this time, its secretions are almost sure to kill the spermatozoa, even if they should happen to enter this canal.

Physiologists are generally agreed that conception takes place during the week following menstruation. Avrard says we have fourteen days of active uterine life and fourteen days of uterine hypotism. He says that conception can occur at any time after menstruation up to the fourteenth day, counting from its commencement. For instance, if menstruation should last for three days, then we would have eleven days for the possibility of conception. But, if menstruation should last eight or nine or ten days, then we would have respectively but six or five or four days as the time possible for conception. After this time, the uterus, according to Avrard, lapses into the hypnotic state, when conception is impossible. While I am disposed to accept Avrard's dictum as the rule, I think I have seen exceptions to it, if we can always depend upon testimony seemingly reliable. Be this as it may, I am sure of this fact; if we wish to determine the effects of the cervical mucus upon the spermatozoa, we must make the experiment the week that follows menstruation. About the fifth or sixth day after the flow is the best moment; for then the uterus is in the most favourable condition. The cervical mucus, which just before menstruation was perhaps thick and opaque, then becomes clear and translucent. If, by examination made at this particular period, we should find spermatozoa in