performance,—it requiring the hand and judgment of an able and daring surgeon.

Nœggerath's operation.—The patient being anæsthetized, and placed in the position for lithotomy, together with being under the play of the carbolized water spray apparatus, to lessen the risk of sepsis, the operator, with or without using a speculum, as the case may be, passes either a loop-shaped galvano-cautery knife, heated to a white heat, or a very long handled heated knife, in shape not unlike a very long quill pen (the cutting portion being very narrow and delicate), through the vaginal attachment of the cervix uteri; a sufficient incision being made, a two branched steel dilator (made on the same principle as a glove-stretcher) is now passed through this incision, and upwards between bladder and womb; the blades are then opened, so as to stretch forcibly asunder the tissues: this is done so as to avoid the hemorrhage that might follow the remaining step of this portion of the operation; the knife is then re-introduced, and with a few sweeps, the remaining anterior attachments of the womb are severed. A like proceeding is now effected posteriorly, that is, the heated knife is passed along Douglass' culde-sac, through the posterior vaginal attachment of the cervix, dilator introduced, and the posterior attachments of the womb severed; now the womb is pulled down into the vagina with vulsellum forceps, and the wire rope of an écraseur attached around the womb, embracing the broad ligaments; the wires are then tightened at the handle, the rotatory motion being kept up till the lateral attachments of the womb are severed—that is, broad, round, utero-ovarian ligaments, as well as the Fallopian tubes. In case adhesions have formed connecting the womb with neighboring viscera, Nœggerath's operation is inadmissible, as the extraction of the womb per vaginam in that case would be impossible; in such case, we have to select operation by abdominal section. Operating the écraseur always occupies a considerable time; when the womb is completely disengaged from its connections, it is withdrawn per vulvam by means of a vulsellum. The dilator which the Professor uses is his own modification of Ellinger.

Abdominal section is effected by a straight narrow-bladed knife, the cut being merely long enough to introduce the hand, which then applies the wires of the écraseur around the uterine connections, natural and morbid. When the ovaries (one or both) are removed, the operation is more difficult, and very much prolonged.

Dr. Nœggerath's first extirpation uteri per vaginam was performed in the beginning of June, 1876, on a private patient.

The present operation in Germany is a somewhat similar proceeding to that of Dr. Nœggerath's; instead of using a heated knife, they effect his incisions with an ordinary cold knife, and ligate the vessels as they proceed; this mode renders the operation much more difficult and tedious.

A more especial feature of this modified operation is, that after the posterior incision is made, a sound is introduced into the uterus which is then artificially *retroverted* through the posterior incision; the womb is then pulled down by vulsellum, broad ligaments cut through, and arteries of ligaments tied; this is a reverse proceeding to that employed by Dr. R. Nelson in ovariotomy, where the vessels were tied first, and the ligaments cut through afterwards.

Adhesions. It might be supposed by some that these could be discovered beforehand by the operator (as they render Professor Nœggarath's operation inadmissable): this is not the case, as the adhesions are often (especially in the prior stages) soft, exceedingly pliable, consequently very apt "to give."

Size of tumor, or of *uterus*. The size of the latter can very often be mapped out, by previous examination, even in cases of fibrous hypertrophy of that organ; but in cases of tumor this is different; as it would be almost impossible to tell, in cases of very large internal tumors of uterus, or tumors growing from the external surface; even in those cases, where small polypi stud the external surface, this would cause difficulty of traction per vaginam. I have a specimen in my house of an internal polypus, larger than a child's head; the woman had never been examined, and had died of something else; the tumor had never given any rational symptoms, and it was only at the autopsy made by the coroner that it was discovered.

Size of tumor rendering extraction per vaginam impossible. One would suppose that where a child's head could pass (as the vagina stretches up to the boundary of the bony outlet) a tumor of that size, or under, could be withdrawn; but such is not the case; in labor, the natural process of expulsion consists of a series of propulsions, gradually increasing in force; besides that, the bag of waters acts as a gradual dilator from within, pushing with a beautifully graduated power; these