

muscle, how deeply they extend into the mucosa, and where and how they terminate therein, I have not been able to determine either in rabbits or the human specimen. Ganglion cells within the uterus—intrinsic ganglion cells—I have not found, and the view that there is an intramural ganglion system is without foundation.”

Construction of the uterus follows: (a) direct irritation of the uterine musculature; (b) irritation of the cervical ganglia, direct, or reflex.

Fellner of Franzensbad, in a paper published in the *Zentralblatt*—“The Influence of the Uterine Nerves upon the Atony of the Non-puerperal Uterus,” considers that he is able to demonstrate the nerves which produce this atony. He contends that the innervation of the two parts of the uterus—cervix and corpus—is distinct; and that there is an antagonistic action between the two. He describes a nerve, the *nervous erigens* a branch of the sacral plexus, which is the motor nerve for the longitudinal muscle fibres of the corpus, and the circular fibres of the cervix; it is also the inhibitory nerve for the circular muscle fibres of the corpus and the longitudinal fibres of the cervix. This *nervous erigens* is the vaso-dilator of the vessels of the uterus, and communicates only with the ganglia in the fundus uteri, i.e., the ganglia at the uterine end of the ovarian ligament.

The *hypogastric nerve*, a pair like the first, springs from the ganglion mesentericum posterior and ends in the hypogastric plexus; it possesses fibres which functionate conversely to the *nervous erigens*, i.e., they are motor nerves for the circular muscular fibres of the corpus and the longitudinal muscle fibres of the cervix; and are inhibitory nerves to the longitudinal muscles of the corpus and the circular fibres of the cervix. These hypogastric nerves communicate with the cervical ganglia and are the vaso-constrictor nerves of the vessels of the uterus.

In any severe or prolonged irritation to the cervical canal, for example, dilatation by steel dilators or by a sponge tent, the cervical ganglia become fatigued and paralyzed. This paralysis is communicated to the hypogastric nerves and through them to the circular muscle fibres of the corpus. Hence the uterus becomes more spherical with its walls thickened in the vertical diameters (the longitudinal fibres are not paralyzed), while the cornua hang like loose bags. The vessels of the uterus become enlarged and engorged. These phenomena are the result of prolonged irritation of the cervical ganglia. But now with curetting of the uterus, or as a result of disease, if the fundal ganglia also become paralyzed, then have we complete atony of the uterus. The uterus becomes simply a large justo-major uterus, with walls uniformly relaxed