

get chemical cleanliness in one's hands, in the surroundings of the patient and her attendants, has passed away."

Dr. West, in his work on the "Diseases of Women," speaks of ovariectomy as it is now performed, as an operation, "holding out a prospect, and a daily brightening prospect of escape from a painful and inevitable death, which at last, indeed, becomes welcome, only because the road that leads to it conducts the patient through such utter misery." Of 84 cases, all private patients, before the use of antiseptics, Spencer Wells had 21 deaths; another series of 84 cases, also private patients, in which Lister's treatment was carried out, there were only 6 deaths. In his last 41 ovariectomies, published in 1880, there were no deaths. Prof. Keith's latest results are still more remarkable, showing a percentage of less than three per cent.

The discovery of the vaso-motor system of nerves was entirely due to experiments upon living animals. By dividing the sympathetic nerve on one side of the neck of a rabbit, Bernard noticed that the vessels on that side became dilated, and a stimulus applied to the divided nerve caused them to contract again.

Connected with the discovery of the motor and sensory nerves and the laws of reflex actions, stand such names as Sir Charles Bell, Müller, Magendie, and Marshall Hall, whose experimental observations have contributed in no small degree to the making of that most important branch of medicine, Neurology. Without the knowledge we have gained by these experiments, our treatment of nervous diseases would be utterly valueless.

The experiments of Bernard and other observers seem to indicate a causative relation between lesions of the central nervous system and diabetes mellitus; pathological observations in not a few cases corroborate this relation, but inasmuch as cases frequently occur where no lesion whatever of the brain can be detected, we are not at

liberty to accept any such relation as established; although it may be possible, by recognising the results of Vivisection in this connection, to arrive at some more successful plan of treatment than has hitherto been adopted in this obstinate disease.

Time will not permit of my taking up that part of the subject relating to the action of drugs upon animals, beyond pointing out that the wholesale assertions of those opposed to Vivisection, to the effect, that the action of drugs upon the lower animals is entirely different to that upon men, are both false and indicative of a remarkable degree of ignorance, especially in those who make a pretence of speaking upon so extensive a subject.

The character of the impression made upon different animals and man, by a given drug, is the same in each case, although, owing to the varying susceptibility of the different animals experimented on, the result may differ in each case, but a correct knowledge of the degree of organization of the same organ in each animal, will enable us to gauge the probable effect of the drug in each individual case.

Any of the works on Therapeutics will be found to contain ample and overwhelming contradiction to the statements of anti-vivisectionists on this point.

The transfusion of blood from one animal to another was first rendered practicable by the results obtained by experiments on dogs. Dr. Gamgee tells of the effect which a death from uterine hemorrhage had upon Dr. James Blundell, (1818), who felt convinced that transfusion would have saved the woman's life, but as such an operation had not been performed before, it was impossible for him to try its effect on the case before him; but after this he at once set to work to prove the correctness of his conviction, by bleeding a dog until life was almost extinct, and then injecting six ounces of blood from another dog. The effect was even greater than he