parts; the latter by introducing and keeping in a catheter for a short time, which could be done the very day he died, showing that the urethra was almost perfect, and that he passed over to the majority in the end from general decay and old age (having turned seventy-eight years), and not from any difficulty in urinating. Not one drop of urine, mucus, pus or blood ever escaped from the passage, and all attempts to catheterize the same proved futile. This only goes to prove the perfect occlusion of the urethra. I give a summary of reasons why the anterior operation seems to me preferable to the posterior : 1st. According to some of the very best authorities-Sir H. Thompson, Keys, Coulson, etc.-the posterior method should only be used when wanted for a short time. Hence I claim aspiration should be performed instead; and when an opening for any length of time is required, tap, and do it anteriorly.

2nd. As we do not always know how long we may want this substitutionary process, and as the dangers are about equal (or if anything in favor of the anterior method), perform that which you can use long or short, and close at will.

3rd. More easily performed; region more accessible to the surgeon.

4th. The most common cause, enlarged prostate, excludes the posterior.

5th. Dangers greater in posterior; if seminal vesicle should be wounded, epididymitis and abscess may be the result; as to wounding peritoneum, about equally divided; *nil*, with ordinary precautions, in either case; extravasation of urine, abscess and blood-poisoning less in anterior if the soft catheter be used and no incision made.

6th. The function of the rectum is not interfered with.

7th. The retaining power of the bladder is present in the one case and not in the other, as was forcibly illustrated in Case III. The patient could hold his water for three or four hours, much longer than before the operation, and by getting up, completely empty the bladder by making the opening the most dependent point.

## CHEYNE-STOKES RESPIRATION --- A NEW THEORY.

## BY THOMAS W. POOLE, M.D., LINDSAY, ONT.

This curious condition, having been briefly discussed in the editorial columns of the last LANCET (February, 1886), I would be glad, with permission

of the editor, to add the following contribution towards the elucidation of this difficult problem.

All the theories put forward on this subject are based on the assumption that impure venous blood, loaded with carbonic acid and deficient in oxygen, acts as a stimulus to the nervous centres. I am aware that this view of the case—the stimulating character of impure blood—was suggested by a high physiological authority, I believe by Dr. Brown-Sequard himself. But it must be remembered that this has merely been put forward as a possible explanation of certain phenomena not otherwise accounted for, and that it rests upon no actual facts of inductive science.

Is it not absurd, on the face of it, to attribute to bad blood, deficient in oxygen, the power of *stimulating* the nerve centres, in the face of the admitted physiological law, that the activity of those centres is directly dependent upon their receiving a due supply of oxygenated blood ? Is it not an outrage on physiological propriety to speak of utilizing "blood loaded with impurities with which to stir up the sluggish nerve centre"? Surely there is something wrong about a theory, or an explanation, which not only common sense would seem to negative, but which is directly antagonistic to established physiological facts.

In the explanation of this curious state, which I here venture to offer, venous blood, loaded with carbonic acid and deficient in oxygen, is held to play its legitimate part of a depressant and paralyzer to nerve function. In order that this shall appear, certain other modifications of current physiological teaching must be made. Nevertheless, in doing this, I shall ask the reader to follow me only so far as I am able to adduce for these modifications the very highest physiological authority.

Why was impure venous blood assumed to be a stimulus to nerve function? Because it was found that "a deficient supply of oxygen in the blood produces a contraction of the arterioles of the body," and this arterial contraction was held, and is still held, to be due to a *stimulus* from the associated nerves,—the vaso-motor nerves, of the arteries. This stimulus, it was taken for granted, came from the venous blood.

Is this doctrine true,—that arterial contraction is due to nervous stimulation? I will ask the reader to satisfy himself of the correctness of the proof to the contrary, to which I am about to refer