histories of a large number of cases, I have come to the conclusion that whatever may be the seat of disease in the horse, these glands are seldom or ever affected in man.

A very interesting inquiry arises, whether this disease did occur in man previous to the commencement of the present century, or whether it was overlooked, in consequence of the presumed impossibility of its transmission. Supposing it to be a new disease, to what extent is it likely to prevail if greater precautions are not exercised by those more immediately exposed to the contagion: farriers and grooms being still in a state of ignorance as to the risks they necessarily run from the incautious handling of glandered horses.

That Mr. W. died of glanders, I think I have fully proved; and that the disease was decidedly produced from contagion, I have no reason whatever to doubt.

EXPERIMENT.

Nov. 19th, 7 P.M. With pus taken from the abscess of the right ankle on the preceding day, I inoculated a jack-ass on the septum of the left nostril and the ala of the right. I also rubbed some of the pus on the conjunctiva of both eyes.

Nov. 20th, 4 P.M. A slight discharge, clear and watery, was running from both nostrils and from both eyes; the conjunctivæ looked red and congested. The man in charge said there was no discharge when he examined in the morning.

Nov. 30th. Discharge continued. He blew as though there was an obstruction to breathing through the nostrils.

Dec. 3rd. Although the spot scarified on the septum of the nose had appeared to be healed, a clear discharge now appeared issuing from it.

Dec. 5th. This spot appeared painful when touched; discharge still coming from it and from both nostrils, and thicker than it had previously been. One of the sublingual glands was enlarged.

Dec. 22nd. There was still a slight discharge from both nostrils, yet the disease did not appear to make any progress; and thinking it useless to keep the animal longer, and he being unfit for work in consequence of having dislocated his thigh some time before the experiment was tried, I ordered him to be destroyed.

The unsatisfactory nature of this experiment may be explained thus:—The pus used for inoculation was taken from the last formed abscess, and was, as before stated, the first to have any of the characters of laudable pus. The abscess itself may also have been of a secondary character. The animal also was removed from a very poor neighbourhood, where, in all probability, he had been ill-fed, and badly treated, to a large comfortable stall, and instead of the poor diet to which he had been accustomed, was, contrary to my constant direction, fed on the best hay, etc., and had as much as he could consume;—a condition more likely to retard or cure, than to favour the production of glanders.

CASE OF ABORTION, WITH FLOODING, IN WHICH A NEW UTERO-VAGINAL PLUG WAS SUCCESSFULLY EMPLOYED.

By W. F. CLEVELAND, Esq.

[Communicated to the Harveian Society.]

IN a recent number of the *Lancet*, and also the *Medical Times and Gazette*, there is an account of a new utero-vaginal plug exhibited by me before the Medical Society of London. At the time referred to, it had not been practically tested; but I am now enabled to state the result of its application in a case which, on account of the extent of the hæmorrhage, is certainly satisfactory and encouraging.

CASE. I was requested by my friend Dr. Ridge to visit Mrs. D. (to whom he had just been summoned) with him, on the 21st ult. She was about completing the second month of pregnancy, when, two days previous to our seeing her, she had been attacked with what she described as

labour pains, shortly followed by a profuse discharge of coagula, as well as liquid blood. The hæmorrhage had continued unabated, several large coagula having passed within the last few hours, but no membranous substance had been detected. Cloths, wet with vinegar and water, had been applied; the bowels had been moved by castor oil; and cold water had been injected into the rectum.

On examination *per vaginam*, the os uteri was patulous, cervix dilated. A portion of the ovum, entangled in firm coagulum, and protruding from the os, was removed; but it was evident, from the size of the uterus, something still remained. As blood was escaping freely, and there was no probability of the rest of the ovum being then expelled or removed, it was determined to plug the vagina. After evacuating the bladder, and applying a bandage and compress to the abdomen, I introduced a No. 2 ball into the upper part of the vagina, and injected water, previously made as cold as exposure for some time in a cold atmosphere would make it. The introduction of the instrument occupied but a few moments. The patient felt the sensation of cold a little, as also that of distension; but it soon passed off. After waiting a quarter of an hour, and finding there was no escape of blood, she was left for the night, and directed to take a fourth part of the following mixture every three hours.

R. Acidi gallic. ℥j; acidi sulph. dil. ℥x℥; tincturæ opii ʒss; syrapi ʒss; aquæ cinnamoni ʒvss. M. Fiat mistura.

It should be stated that, at the time it was decided to use the plug, the patient was in bed, and much exhausted from the hæmorrhage, which had been going on for more than forty-eight hours. In attempting to raise herself in bed, she had fainted. The face was blanched; pulse small, and very quick.

Feb. 22nd. She has had some sleep, and there has been no hæmorrhage. There is no appearance of any blood whatever having escaped. The plug was now removed with the greatest ease; it had been *in situ* twelve hours. There was a small coagulum at the top of the ball. A sanious and foetid discharge followed on her passing water, and moving in bed to have her linen changed. The patient states that she passed water twice during the night without the least inconvenience from the instrument; and indeed she should not have been aware of its presence from any sensation produced by it. She has taken wine and nourishment, and has considerably rallied. Little or no progress was made towards the expulsion of the ovum.

On the following day, there was a return of the hæmorrhage, although in a minor degree. She was ordered a dose of castor oil; and as this did not act, she took some sulphate of magnesia, which moved the bowels several times; while pain in the back was at the same time induced. Several attempts were made to seize and extract the ovum with a pair of long forceps; but, owing to so small a portion of it being extruded, and that exceedingly lacerable, they were given up. She now took several doses of the ethereal tincture of ergot; and not until three days more had elapsed, or eight from the commencement of the abortion, was the rest of the ovum expelled. A foetid discharge continued for several days, and then gradually ceased. She has been slowly recovering her strength.

REMARKS. The principle on which the instrument above alluded to is constructed is as follows:—A common vulcanised India-rubber air-ball, sold at the shops as a child's toy, and numbered according to size (a No. 2 being the size of a large orange, and applicable before the vagina has been greatly distended, as in the recent passage of a fully developed fœtus), is fastened to one end of a thin incorrodible metallic pipe, six inches long. At the other end of the pipe is a stopcock, with shoulder fitted to receive the nozzle of a large syringe. The air is to be pressed out of the ball, and kept excluded by turning the tap, when it (the ball) may be folded into a small and compact mass, and introduced into the upper part of the vagina. The syringe is now to be applied, the tap turned, and ice-cold water, or a freezing mixture, injected into the ball until it is distended to a sufficient size, when the tap may

be again turned, and the syringe removed. A double tube is adapted to one of these balls in my possession (a No. 4.) by which a continuous stream of cold water may be maintained through the ball without affecting its volume.*

The opportunity that has occurred of putting this instrument to a practical test has only confirmed the opinions I have ventured to advance in regard to its efficiency as a plug, its easy introduction and removal, the advantages of non-absorption, cleanliness, and comfort, to the patient; while the facility with which cold may be applied by it in immediate proximity to the uterus, or source of hæmorrhage, must be considered a desideratum.

In conclusion, it will be only necessary to direct attention to the series of interesting cases now publishing in the JOURNAL by Dr. Radford, where it will be seen how eminently necessary and useful the plug has been in his practice. And although there can be no doubt that a sponge or silk handkerchief, etc., may, in the hands of the experienced and skilful accoucheur, serve the purpose intended, so it may be confidently affirmed that many a patient's life has been sacrificed through the tardy and ineffectual performance of the operation, with the means just alluded to.

Reviews and Notices.

DIGESTION AND ITS DERANGEMENTS. The Principles of Rational Medicine applied to Disorders of the Alimentary Canal. By THOMAS K. CHAMBERS, M.D., Fellow of the College of Physicians, Physician to St. Mary's Hospital, etc. pp. 552. London: John Churchill. 1856.

In the present day, when elaborate necroscopical and microscopical research is disputing the empire of medicine with floundering empiricism, and when, amid all this conflict, true therapeutical science is left to make progress as it best can, it is refreshing to the friends of rational medicine to meet with such a work as has been issued by Dr. KING CHAMBERS. We are led to speak thus early in terms of commendation, because, in glancing through the work, we meet with some strong indications that the author is bent on steadily following that path which, beset with difficulties as it may be, is the only one which can lead to the wished for goal. In the second page of the Introduction, he gives the following outline of his ideas as to the relation in which physiology stands to pathology.

"The author believes that in no way is both the science and the art of healing so likely to be improved, as by the association in its literature, and through that, in the minds of its practitioners, of pathology with physiology rather than with morbid anatomy;—that juster theoretical views are elicited by looking upon disease as part of the phenomena of life than as the producer of appearances seen after death;—and that patients are more likely to be cured by one, whether original observer or reader, who is considering even imperfectly the vital actions exhibited by them, than if he knew exactly what would be the consequences of the disease in the corpse."

Most true is this: and it is to be wished that it were more universally understood and acted on. Year after year men rejoicing in the title of pathologists—men whom our profession delights to honour—entertain each other and the medical world in general with a description of a tumour in this uterus, or an ulceration in that stomach; but little or nothing is said as to *how* the said tumour or ulceration impaired the functions of life, or *why* the patient died. This is all very pretty—very proper, indeed, for everything in nature ought to be examined and made known: but it is not the way to best promote *medicine*—the science which heals. We do not object to researches in morbid anatomy: but we would discounte-

nance the notion that men of science, in following these researches *per se*, are doing something great in medicine.

But, to return to our author; when he comes to the second division of his work—that on disease, he thus boldly expresses his views of the unity of living action:

"The artificial boundaries of chapters and pages separate physiology and pathology for the convenience of readers: but it tends to false views of Nature's works, and bad practice in our profession, to suppose them different sciences. It is a fatal error to do or to say anything which can tend to the idea, that in health one set of laws are exhibited by our bodies, and in disease another set; or, what is still worse, that these laws are in opposition, the one against the other. The more man learns of Nature, the more convinced he becomes that one mode of action is followed throughout,—that here there is not, as in the moral world, any contest of Ormuzd and Ahriman, any prevalence now of the evil principle, now of the good; but that everything is as it came from the hand of its Maker—'very good'.

"What, then, is disease? Its etymology best explains: it is a state of things in the body which produces a want of comfort to the mind, renders it inefficient for the mind's purposes, or shortens the connexion of the two—the material life. This inefficiency, this want of power to do what the sane mind thinks it has a right to require of it, may be referred in some examples wholly to *external causes*, in some wholly to *original formation of the body*, in an overwhelming majority to a combination of the two. But what happens in every instance is in obedience to the ordinary laws of physiology—chemical, mechanical, mixed, or unassignable (commonly called 'vital'), as the case may be." (pp. 271-2.)

The words in parentheses "commonly called 'vital,'" seem to point out that Dr. Chambers is not altogether satisfied with the ordinary convenient nomenclature of some of the phenomena of health and disease; and this opinion becomes more confirmed by a perusal of his subsequent remarks. Thus, he cannot understand the existence of *functional* disorder without corresponding change of *structure*; and, therefore,

"When the word 'functional' is used in the following pages, as it often will be, let it be considered to mean no opposition to 'organic', but simply a confession that the changes of matter preceding and accompanying it are not discovered—that our knowledge of the subject ends with the perception of deranged function." (p. 281.)

Thus far we have exhibited Dr. Chambers as a philosophical physician, holding views of health and disease which, if generally recognised and followed, would make us better practitioners, and render more and more wide the distance between us and the pretenders to our knowledge and skill. But our author's work is on a special subject; and a few words must be said as to his manner of dealing with it.

The work is divided into two books, of which the first treats of the healthy functions of the digestive organs, and the second of their diseased states. Each book is subdivided into ten chapters, so arranged that each chapter is correlative to that one with the corresponding number in the other book. To make this more clearly understood, we arrange the headings of the chapters in each book side by side.

BOOK I.		BOOK II.	
CHAP. I. Introduction.		CHAP. I. Health and Disease.	
CHAP. II. Parts of the Organism concerned in Digestion which are common to the whole Alimentary Canal.		CHAP. II. Changes in the Parts of the Organism concerned in Digestion which are common to the whole Alimentary Canal.	
CHAP. III. The Mouth and Gullet.		CHAP. III. Morbid Condition of the Mouth and Gullet affecting Digestion.	
CHAP. IV. The Stomach.		CHAP. IV. Morbid Affections of Stomach. 1. Altered States of the Organ; 2. Morbid Acts consequent on Morbid Conditions.	
CHAP. V. The Small Intestines.		CHAP. V. Morbid States of Small Intestines interfering with Digestion.	
CHAP. VI. The Pancreas: Pancreatic Juice.		CHAP. VI. Morbid States of Pancreas.	

* The instrument may be procured of Messrs. Weiss, Strand; or of Mr. Maw, Aldersgate Street. The India-rubber ball should be dipped in water before being used. Oil or grease produces an injurious effect upon it.