References.

(1) J. N. Langley and Toyojiro Kato: "The Rate of Loss of Weight in Skeletal Muscles after Nerve Section, with Some Observations on the Effect of Stimulation and Other Treatment," *The Journal of Physiology*, 1915, Volume XLIX., page 432.

(2) J. N. Langley: "Observations on Denervated Muscle," *The Journal of Physiology*, 1916, Volume L, page 335.

(3) F. A. Hartman, W. E. Blatz and L. G. Kilborn: "Studies in the Regeneration of Denervated Mammalian Muscle; I. Volume and Temperature Changes," *The Journal of Physiology*, 1919-1920, Volume LIII., page 92.

(4) J. N. Langley and Toyojiro Kato: "The Physiological Action of Physostigmine and its Action on Denervated Skeletal Muscle," *The Journal of Physiology*, 1915, Volume XLIX., page 410.

(5) J. N. Langley and M. Itagaki: "The Oxygen Use of Denervated Muscle," *The Journal of Physiology*, 1917, Volume LI., page 202.

(6) J. N. Langley: "Observations on Denervated and Regenerating Muscle," *The Journal of Physiology*, 1917, Volume LI., page 377.

(7) J. N. Langley and M. Hashimoto: "Observations on the Atrophy of Denervated Muscle," *The Journal of Physiology*, 1918-1919, Volume LII., page 15.

(8) F. A. Hartman, W. E. Blatz and L. G. Kilborn: "Studies in the Regeneration of Denervated Mammalian Muscle: II., The Effect of Massage," *The Journal of Physiology*, 1919-1920, Volume L[illegible], page 108.

(9) R. W. Lovett: "The Third Year in Infantile Paralysis," *The Journal of the American Medical Association*, December 17, 1921, page 1941.

Reports of Cases.

TETANUS.

BY E. R. ROSEBY, M.B., Ch.M. (Sydney),
Gunning, New South Wales.

THE perusal of Dr. Bell's account of two cases of tetanus recently, impels me to report the following:

Mrs. F.B. was resting in bed threatened with miscarriage. On the evening of July 24, 1923, she had a serious hæmorrhage and when then seen was almost pulseless and had fainted. She presently rallied sufficiently to allow of the removal of a six weeks ovum and was curetted and plugged. About six hundred cubic centimetres of saline solution were injected under the right breast. Next evening the temperature was 40° C., the breast being painful and reddened.

Twenty-four hours later the temperature had dropped to 37.8° C., the breast looked less angry, but abscess formation was anticipated.

She improved till the seventh evening when she complained of stiffness of the jaw and pain and stiffness of the back of the neck and later similar stiffness of the muscles of the left hand. She was seen about three hours after the onset of these symptoms and then could open her mouth about half the normal extent, but with pain and stiffness.

The abscess which had formed in the breast, was opened and about thirty cubic centimetres of pus and some gas bubbles escaped.

I injected three thousand units of tetanus antitoxin (all I had) into the right pectoral muscles.

Next morning the jaw felt easier, though she still had some stiffness of the back of the neck and hand.

During the next twenty-four hours, without any further antitoxin, these symptoms gradually disappeared.

In this case, the breast infection was evidently due to the saline solution containing tetanus bacilli from a septic douche can. Whether the rapid improvements after opening the abscess was due to draining away the bacilli and toxins or to the small dose of antitoxin is problematical. But it illustrates that tetanus can be just as mild sometimes as at other times it is severe.

A CASE OF PROCTITIS WITH UNUSUAL FEATURES.

BY R. W. CILENTO, M.D., B.S. (Adel.), D.T.M. & H. (Lond.),
Director, Australian Institute of Tropical Medicine, Townsville, North Queensland.

I AM indebted for the following particulars to the courtesy of Dr. E. Humphry, of Townsville, and of Dr. T. Mansfield, of Ayr. On June 7, 1923, the patient in question called for examination; the following particulars were obtained.

A.B., *ætatis* nineteen, a clerk, resident at Ayr, stated that about twelve months previously he first became aware of a small tumescent patch, somewhat tender, situated immediately posterior to the anal sphincter and wholly outside the anus itself. There was a slight tenderness on passage of a motion and some tenesmus. Without affecting his general health, the patch became somewhat larger, horseshoe-shape and finally circumanal. It began to be somewhat painful with considerable occasional itching. There was also a slight discharge, tending to form crusts of inspissated pus. The patient's general health continued good and in spite of treatment there seemed no tendency for the activity of the lesion to diminish. During the year he lost weight slightly and states that he noted some sweating at nights in excess of his usual habitus. He was aware, too, of easy fatigue and a persistent though trifling cough.

Previously, his history was of little account, except that he had suffered as a child with adenoids, subsequently with whooping cough at the age of five or six years, but most importantly, that two years previously he had had a slight three-day attack of influenza with a very tardy convalescence and a tendency subsequently to the acquirement of heavy colds from slight exposures. The patient who admitted certain promiscuity in his sexual relationships, denied any veneral infection, volunteering the statement that he used preventives, the operation of which he confined to the glans and prepuce.

On examination the patient was found to be a sallow, somewhat freckled, lank-haired adolescent, bearing facial evidences of his adenoid history. The chest was poorly developed and flattened anteriorly. On examination the chest note was found to be somewhat impaired throughout, more particularly at the angles of the scapulæ posteriorly and over an area corresponding to the third interspace anteriorly on the left side. Slight râles were detected at both apices. The chest movements in breathing were poor. Otherwise the examination did not reveal any pathological change.

With regard, however, to the actual seat of lesion, it will be seen from the illustration that a raised granulomatous perianal area of infiltration advancing to, but not apparently involving the rectum, was apparent. The cleft of the nates tended to limit the extent of the affected area, the edges of which were marked by a crust of offensive, dried pus. The surface was moist, with a thin discharge. No ulceration extending below the surface epithelium had occurred.

Diagnosis.

The diagnosis of the case presents several features of interest. In any case of granulomatous or other inflammations in the anal area occurring in the tropcs, one thinks naturally of acute and chronic catarrhal proctitis, gonorrhœal, syphilitic or tuberculous proctitis, malignant disease and ulcerated granuloma of the pudenda. Catarrhal conditions were taken to be excluded by the chronicity of the condition, the absence of apparent cause, the absence of tenesmus, pain *et cetera* and the intractability.

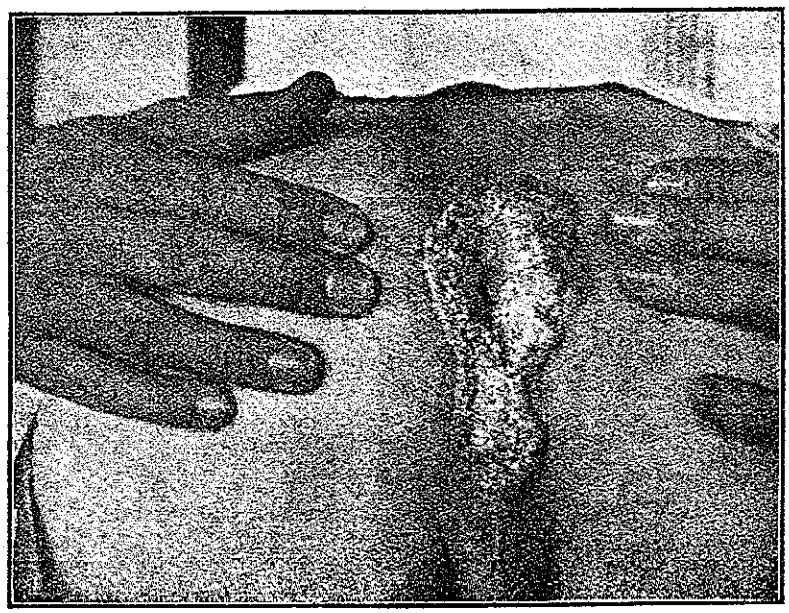
Syphilis was excluded by repeated failure of the serum to fix complement in the Wassermann test. Malignant disease was contraindicated by the youth of the patient, the nature of the lesion and the slowness of its progress.

Granuloma venereum was excluded by the history, lack of ulceration and the appearances of the lesion. There remained gonorrhœal proctitis and tuberculous proctitis.

From the history and the chest signs it was anticipated that the diagnosis was probably tuberculous proctitis and a sample of sputum was taken for examination, together with a small section of the granulomatous tissue. At the same time smears were made from the discharge found in the lesion and sent for examination for gonococci. *Bacillus tuberculosis* was found in the sputum and a Gram-negative diplococcus, morphologically identical with gonococcus, was detected in the anal smear in large numbers.

It appeared from this examination that the case might be one of mixed gonococcal and tuberculous infection. Both gonorrhœal proctitis and tuberculous proctitis, however, being rare, their coexistence was regarded as improbable and further experiments towards identification of the diplococcus were put in hand. There was no direct evidence of unnatural practice in the case under review and such were denied. Moreover, there had been none of the early œdema, pain, swelling of the parts, tenderness and so forth for which one looks in cases of gonnorhœal infection. Also the infection did not involve the mucous areas and the implantation of the gonococcus must necessarily have occurred, therefore, upon a skin area or upon some break in its continuity, such as a chafe or abrasion, if present as an infecting organism.

Emery, in his "Clinical Bacteriology and Hæmatology," refers to an organism closely resembling the gonococcus, but a little larger and more variable in size, which he believes to be *Micrococcus catarrhalis*. After several attempts, the diplococcus, to which reference has been made above, was successfully grown, the difficulty in its cultivation being regarded as a point in favour of its being the gonococcus. However, it failed to ferment glucose and on further investigation definitely proved not to be the gonococcus, though morphologically, it was apparently identical.



Tuberculous proctitis is not uncommon and is usually secondary to pulmonary disease. It is stated, however, that the lesion may be primary, the bacilli entering with the food. Commonly the disease manifests itself by tuberculous fistulation, the external orifice of the fistula being merely characteristic of a tuberculous sinus, a thin and watery discharge being present, and the internal opening being easily felt, as a rule, or seen *per rectum*. More rarely, there is a variety of tuberculous involvement, in which tubercles are deposited in the mucous or submucous tissues of the bowel wall, with degeneration, and finally ulceration. This condition, however, rarely presents externally, though it may spread to the anal canal and destroy the sphincters by ulceration.

The third variety of tuberculous disease is rarest of all and is that type which most nearly concerns us in the present instance. The inflammation is limited to the skin of the anal canal and the immediate perianal region. When occurring, the disease is very chronic, involves the anal canal, does not tend to spread to the mucosa and the appearance resembles that of hypertrophic lupus. The bacilli are difficult of detection in the lesion, but the microscopic structure of the granuloma is characteristic.

It will be seen that this description of the perianal form of cutaneous tuberculosis precisely mirrors the condition which was found in the patient under consideration.

Reviews.

ANÆSTHETICS IN PRACTICE AND THEORY.

CONSIDERABLE interest is aroused by the appearance of a new text-book on anæsthetics by Dr. Bloomfield, owing to the success of his previous production, the well known hand-book. The text-book is necessarily a much more ambitious project than the hand-book and it ranks in a more cumbersome class of tome. Yet on reading it one is not impressed by such a feeling, since the matter has been handled with experience and thereby much unnecessary detail and redundant verbiage have been eliminated and clear and attractive reading has been produced.[1]

All the important descriptive matter is well and clearly stated whilst opinions and directions are sound and good. Statements open to question are met with in very few instances, but in each it is concerning material that has no important bearing. The book is one of the latest records of approved practice in which are included the recent innovations in methods and apparatus. A moderately successful effort has been made to harmonize the more or less widely divergent results of the many researches in the field of the physio-pathology of anæsthetics, especially of chloroform. This, however, is a matter of considerable difficulty, even of impossibility. There is no preface, but a brief introduction is inserted in the opening pages of the first chapter. This is followed by a history of the evolution of the practice of surgical anæsthesia. The second chapter is taken up by a review of various theories as to the mode of action of anæsthetics, the whole of which, however, fails to afford much enlightenment. It is probable that until the physiology of sleep is understood, but little progress can be expected. The next chapter deals with the chemical and physical characters of practically all of the agents hitherto employed for the production of surgical anæsthesia. Most space is given to directions for practical administration in excellent chapters on the administration of ether, nitrous oxide, chlorform, ethyl chloride, their mixtures and sequences. The methods for the administration of the lesser known agents are more briefly detailed. The important subject, "choice of the most appropriate anæsthetic" for special operations—emergency, æsthetic, on the nose, mouth, throat, chest and abdomen, for example, such as usually demand experience and mature judgement—is well treated. A chapter is devoted to the discussion of the value of the preliminary employment of narcotic and other drugs; another to emphasize the value of posture in certain operations and in circulatory failure. Under the comprehensive heading "undesirable conditions occurring during anæsthesia," are discussed all possible difficulties and indications of danger, with their treatment. A chapter deals with accidents and complications following anæsthesia. The technique of local spinal and sacral anæsthesia is amply detailed in two chapters. The last

[1] "Anæsthetics in Practice and Theory," by J. Blomfield, O.B.E., M.D.(Cantab.); 1922. London: William Heinemann (Medical Books), Limited; Royal 8vo., pp. xii. + 424, with 48 figures. Price: 25s. net.