of death had entirely disappeared because, as he said, he knew he would get relief from his nitro-glycerine or nitrite of amyl. I am quite aware that my contribution to this debate is of very little value, because I cannot reconcile the symptoms produced by angina pectoris with those found during life and after death, and I have come to the conclusion after a long observation of hospital cases that angina pectoris is much more common amongst the rich than amongst the poor; that it is associated as a rule with gout; and that it is caused by spasm of the muscular structures of the heart, which is immediately relieved by some vaso-dilator.

I am, Sir, yours faithfully,

Liverpool, August 16th, 1909.

NATHAN RAW.

THE MODERN TREATMENT OF TUBERCULOUS JOINTS.

To the Editor of THE LANCET.

SIR,—In opening the discussion on the modern treatment of tuberculous joints at the recent meeting of the British Medical Association I am reported in THE LANCET to have said: "Bier's congestive method was sometimes useful, but occasionally the results had been disastrous." I stated that disaster had followed the exclusive use of tuberculin and of Bier's congestive method, and that they should be used as mere allies to other recognised methods. I am further reported as saying that I favoured the reduction of spinal deformity at whatever stage the disease. I stated precisely the contrary.

I am, Sir, yours faithfully,

Liverpool, August 16th, 1909.

ROBERT JONES.

AN OPERATION FOR THE TOTAL EXCISION OF TONSILS.

To the Editor of THE LANCET.

SIR,—I read with much interest in your last week's issue the letter from your correspondent, Mr. H. B. Mylvaganam, recording the successful performance of the operation of complete tonsillectomy in 300 cases. He does me the honour of associating my method of procedure with his own—"there is practically very little difference in the technique adopted by Mr. Waugh and myself"—and then devotes the rest of his article to repudiating those principles which I regard as essential to my operation and which render it a simple, rapid, and bloodless procedure. I feel, therefore, that I should be doing him an injustice if I accepted the proffered compliment.

He writes as follows: 1. "In operations on the throat and nose the anæsthetic is not pushed to the same extent as required for operations on other parts of the body." 2. "Having partially anæsthetised the patient the head is allowed to hang well over the edge of the table." 3. "It is not absolutely necessary to define the capsule of the tonsil. If any pieces are left behind they can be felt by the finger and removed by the scissors or by the punch forceps." He then continues: "One drawback to this method of removing the tonsils is the hæmorrhage which follows in some cases. It often struck me that the amount of hæmorrhage was out of proportion to the quantity of tonsillar tissue removed." Therein I agree with him, only I regard the hæmorrhage as the direct outcome of his procedure which I have detailed above in his own words. It is clear that the amount of hæmorrhage in any operation must depend partially upon the ease with which vessels severed at the site of the operation can retract and contract, and partially upon the avoidance of any procedure which tends to produce local engorgement of the vessels during the operation. By defining the capsule of the tonsil at the first incision the rest of the operation is conducted in the line of cleavage between the capsule and the pharyngeal wall, so that the severed tonsillar vessels can retract immediately into the muscular wall. Consequently, as my experience has shown me, the cessation of hæmorrhage is spontaneous and rapid. I have therefore never used any hæmostatics, not even "hot sponges on holders," nor are there any "pieces left, which can be felt by the finger and subsequently be removed by scissors or punch forceps."

Local engorgement of the blood-vessels of the head and neck can be brought about in two ways—i.e., by the

effect of gravity upon the venous circulation, and by the performance of the normal physiological acts of swallowing and coughing. At the end of ordinary expiration there is an accumulation of blood in the extra-thoracic veins. If expiration is prolonged to such an extent as to culminate in the explosive act of coughing the venous engorgement becomes excessive and consequently the flow of blood from torn veins will be free and copious. By the position in which I place my patients on the operating table with merely a sandbag under the shoulders I avoid the effects of gravity upon the venous circulation and at the same time there is a sufficient slope of the pharynx to enable the blood to trickle towards the roof of the naso-pharynx. By the employment of a brief deep anæsthesia coughing and swallowing are prevented. Consequently my operation is strikingly free from hæmorrhage and the position of the patient gives me a view of the field of operation sufficient to remove the whole tonsil. I need no better view.

Mr. Mylvaganam reassures me that he was completely unaware of my method until he read of it in THE LANCET, and whilst he is courteous enough to associate our methods as being similar I must own that I should have hesitated to do so if he had not suggested it. With regard to the use of the conchatome as a retractor, I must express my indebtedness to Mr. Steward of Guy's Hospital for bringing it to my notice for the purpose of punching out tonsils. I found that when used in that way it soon became blunted, and that then it held tonsils firmly without tearing them. My original paper, which was written nearly a year ago, includes the cases which I had operated on continuously since August, 1906. Since then I have performed the operation on more than 1500 cases, and I still have no untoward events to record.

I am, Sir, yours faithfully,

GEORGE E. WAUGH,

Surgeon to Out-patients, the Children's Hospital,
Great Ormond-street, W.C.

Welbeck-street, W., August 18th, 1909.

A CORONER'S COURTESY.

To the Editor of THE LANCET.

SIR,—Enclosed is a reply I received from the coroner for the county of Anglesea, to a letter of mine reporting a case of sudden death. The man was dead before I arrived at the house. The deceased had never been attended by any medical man.—I am, Sir, yours faithfully,

R. ARTHUR JONES.

Bod Idris, Menai Bridge, August 4th, 1909.

[ENCLOSURE.]

High St., Bangor, N. Wales.

CORONERSHIP.

DEAR SIR,—I am in receipt of your letter stating that a man aged 66 died at Orsedd, Garnedd Goch, last night and that you never attended him, but that you were the Medical Attendant of his brother and sister, without saying how he came to his death.

I presume there are hundreds of people in Anglesey dying without your attending them and which in no way concern me.

Why, therefore, you send me a note to that effect only I cannot understand as I presume there are hundreds of people dying in Anglesey without your ever attending them, and which, as I have said, in no way concern me as Coroner.

Yours truly

R. JONES ROBERTS.

* * Mr. R. Arthur Jones here went out of his way to give Mr. R. Jones Roberts early notice of the occurrence of a death in his district with regard to which it would be the duty of any coroner to make immediate inquiry in order to ascertain whether it might be a case for an inquest or not. There seems to have been no medical man in attendance on the deceased, but Mr. Jones saw the body very shortly after death, though not before death took place. It was not, then, the duty of Mr. Jones to inform the coroner of the death, in the sense that there was no legal obligation upon him to do so. Had he not done so the coroner would probably have received through some other channel an intimation later that it had taken place. It was just a courteous act on Mr. Jones's part, and possibly also one prompted by a desire to assist the relatives, and to let the coroner know that there was a case for his attention. In these circumstances comment on the coroner's letter

is not required: it condemns itself. Fortunately, these cases are rare, and it is to be hoped that the much-needed amendment of the Coroners Act will supply rules of procedure calculated to prevent such occurrences. In the present condition of the law, as we explain this week in a leading article, where no certificate of the cause of death is forthcoming, the preliminary stages which lead up to an inquest or to the dispensing with one are not very clearly marked out. Inquiries have to be made and things work smoothly or not according to the relations existing between the coroners and the medical practitioners. These relations are not likely to be improved by any letter similar to that of Mr. R. Jones Roberts.—ED. L.

THE TERRITORIAL MEDICAL SERVICE.¹

(FROM A SPECIAL CORRESPONDENT.)

IV.—THE MEDICAL EXAMINATION OF RECRUITS: THE SELECTION OF MEN FOR ACTIVE SERVICE.

The medical examination of candidates for the Territorial Force is carried out principally by the medical officers of the units concerned. In the regular army all officers of the Royal Army Medical Corps on joining now pass through a course of instruction in recruiting duties, a procedure which is of the greatest value to the State. Medical men who have not had experience of the many slight defects or deformities which interfere with the soldier, and the advantages sometimes taken of these defects by him to avoid duty or to get his discharge by being invalided when he tires of army life, require special knowledge which can only be imparted by expert recruiting medical officers. The physical standards for recruits vary with the various arms concerned. In the regular army the minimum measurements for height and chest girth are those laid down for Infantry of the Line, Army Corps (except drivers), Royal Army Medical Corps, and Ordnance Corps (ordinary recruits). For these classes the minimum standards for men 5 feet 3 inches in height is a chest expansion of 33½ inches, provided its range of expansion is not less than 2 inches. The minimum age laid down for recruits is 18 years, but in certain units (Army Post Office Corps, certain sections of the Royal Engineers, and Army Ordnance Corps), and recruits enlisted to complete drafts or units proceeding abroad, the minimum age standard is fixed at 19 years. The majority of recruits (95 per cent.) are growing lads, and it is estimated that most of them will not be capable of doing the work of a mature soldier for about two years. The latest available statistics (1907) regarding recruits medically inspected in the United Kingdom for the regular army show that of 59,393 recruits inspected in that year, 16,906 were rejected on inspection and 607 were rejected as unfit within three months of enlistment, giving a total for rejections of 17,513 and ratios of rejections per 1000 inspected of 284·65, 10·22, and 294·87 respectively. The figures for the decade 1897 to 1906 are even higher. The most common causes of rejection per 1000 inspected in 1907 were: (a) under chest measurement, 49·72; (b) teeth, 48·17; (c) heart, 29·25; (d) vision, 24·06; (e) defects of lower extremities from fracture, contraction, luxation, &c., 17·04; (f) varicocoele, 11·42; and (g) under height, 10·49. The chief defects causing discharge from the service within three months of enlistment for the same period per 1000 inspected were: (a) heart, 1·73; (b) nervous system, 0·93; (c) weakness of intellect, 0·86; (d) defects of lower extremities from fracture, contraction, luxation, &c., 0·74. These, the principal causes of rejection, are of the utmost importance to all Territorial recruiting medical officers as they indicate the deficiencies most to be looked for, and when we examine the invaliding figures of the regular army it may be noted that as regards the relative importance of the different causes of invaliding, diseases of the circulatory system hold first place. This has been attributed to various causes; in the case of valvular disease occurring within the first year of service to inefficient recruiting, and in the case of disordered action of the heart within the same period to the effects of military

training. It may be mentioned that the so-called disordered action of the heart met with in the service is not necessarily always functional, but may be due to dilatation of the stomach. It is understood that investigations are being carried out on this subject by the military medical authorities. The six principal causes of invaliding from the army since 1880 have been diseases of the circulatory system, tubercle, diseases of the nervous or digestive system, rheumatism, and syphilis. A brief note on some of the principal causes of rejection or discharge may now be considered.

Diseases of the heart.—The heart is perhaps the most important organ to be examined in a candidate for enlistment. The greatest possible attention must be paid to organic lesions, also to functional affections of the heart, and men must be rejected if found suffering from any marked degrees of irregularity of cardiac action which do not tend to subside after a reasonable period of rest. The accepting of recruits with hæmic or temporary bruits, while not advisable in the regular army, should only be allowable with caution in the Territorial Force, and such recruits if passed must be warned of the dangers they risk on strenuous marches, field days, &c. The cigarette habit must not be lost sight of in its rôle as a causal factor of functional disordered action of the heart. With a view to help men to overcome the habit Territorial medical officers should advise their commanding officers to prohibit the smoking of cigarettes at certain times, when pipe-smoking would be made allowable instead.

Teeth.—Loss or decay of many teeth causes nearly 17 per cent. of the number of all rejections for the service if we exclude failure to attain the physical standard of size. The South African war caused a high standard to be laid down, but opinion is now held that the inefficiency attributed to defective teeth was then much over-rated, and that a great proportion of the dental troubles were due to scurvy from want of fresh food, meat, and vegetables, added to the prolonged duties in the field. In some cases the teeth of recruits may be brought up to the standard by dental treatment. The acceptance or rejection of a recruit on account of loss or decay of several teeth depends upon the relative positions of the sound teeth. Thus the loss of several contiguous molars on both sides interfering with efficient mastication, or, again, the loss of many teeth in a recruit of an indifferent constitution, would point to rejection. In the case of the Territorial recruit the standards laid down for the regular army as regards the teeth may be more elastic and the criterion of dental fitness should depend on the general nutrition of the candidate. Special attention should be paid, however, by Territorial medical officers to the question of pyorrhœa alveolaris which is not uncommon in young men. It is more commonly found on one side of the mouth associated with deposit of tartar and can be often remedied by application of peroxide of hydrogen. Its presence has such an important bearing on the general health that the condition should never be overlooked.

Varicocoele.—This condition formerly used to be the cause of a fair number of rejections in recruiting, but latterly it is viewed with greater leniency. There is said to be a widespread belief that even a slight degree of varicocoele is responsible for impotence, and the demand for operation may be attributed to this fact rather than to any pain or other trouble. But the question of varicocoele is a complicated one.²

Flat feet.—Recruits who show by practical tests that the arches of the feet are strong may be accepted, although the feet may appear to be flat. The regulations as modified in 1907 were the means of passing about 500 men into the regular army in that year who would have been rejected under the former rules. The proof that such men became efficient soldiers is shown by the ratio for discharges under three months' service, which have since fallen.

Syphilis.—It is definitely laid down that men suffering from the constitutional form of this disease cannot be enlisted in the army. Men suffering from constitutional syphilis are extremely likely to break down under the strain of active service.

Selection of Men for Active Service.

Here the standards laid down must be much more rigorous.

¹ Nos. I., II., and III. were published in THE LANCET of July 31st and August 7th and 14th.

² See THE LANCET, Sept. 23rd, 1905, p. 923, and the important correspondence which followed on Colonel Frank Howard's communication.