position of the conus arteriosus and pulmonary valves in relation to the rest of the heart.¹ Dr. Ewart also points out that the nearness of the pulmonary valves to the chest wall and the obliquity of the pulmonary artery with regard to its valves account for the local loudness of its second sound, whilst the isolated position of the valves and conus explains the feeble conduction of this locally loud sound. The feeble conductivity of the pulmonary sounds I have long recognised, but could never completely explain. Dr. Ewart's clear exposition has, I think, given me this completeness; but I would like to add these three considerations to his article:—1. Both the pulmonary second sound and pulmonary systolic murmur are usually well heard over the aortic area and not seldom over the subclavian and carotid arteries, especially on the right side. This I have always held to be due to the relation of the pulmonary artery to the aorta, a relationship the closeness of which Dr. Ewart's illustrations well exemplify, and which post-mortem examination exhibits still more clearly. 2. The pulmonary systolic murmur, like the second sound, and no doubt for similar reasons, is freely conducted in all directions except those mentioned under 1, except that it is better heard up and out towards the left shoulder than is the second sound; and this, I believe, to be due to the different position of the chief focus of origin of the murmur, such focus being in the artery itself some inch or more above the valves. 3. The isolated, unsupported position of the conus arteriosus accounts for the remarkable giving way of this portion of the heart (as shown by the increase of the vertical dulness) in cases of anæmic debility. This I have previously pointed out,² and it is demonstrated with added clearness in Dr. Ewart's paper.

I am, Sirs, yours truly,

Birmingham, Oct. 6th, 1894.

ARTHUR FOXWELL.

To the Editors of THE LANCET.

SIRS,—The valuable paper by Drs. Sidney Ringer and A. G. Phear, which appeared in a recent issue of THE LANCET,³ has interested me greatly, as I have learnt to regard with suspicion some of the accepted views respecting accentuation of the second sound. In the first place it is by no means always easy to speak positively regarding the existence of accentuation; in order to do this one must keep in mind a standard with which to compare the sounds we are testing, and this implies a sound memory of no mean order. Then again, as Drs. Ringer and Phear insist, the second aortic sound may be accentuated when the radial tension is low, even very low. This happens so frequently in my experience that I have for some time been cautious in placing too great reliance upon an accentuated aortic sound as evidence of high systemic arterial tension; while, on the other hand, this sign may be wanting in undoubted high tension owing "to the thickness and nature of the tissues intervening between the semilunar valves and the stethoscope," and perhaps to other causes also. In regard to accentuation of the second pulmonary sound, I find it very common in women with sound heart and lungs, and in whom there is no suspicion of chlorosis, and I have been led to think that it may be due in such cases to the wearing of stays. These, unless worn very loosely, necessarily restrict the pulmonary vascular area and hamper the respiratory movements, thus in a twofold way impeding the circulation through the lungs and sending up pulmonary tension. In hospital in-patients, again, the respiratory movements are weaker than in those who are up and about, and this may explain why the pulmonary second sound, as pointed out in the paper referred to, is comparatively loud in the former.

In order to clear up the many difficulties besetting the proper interpretation of the second heart sounds, we must first be sure we understand how they are produced. I observe that both Drs. Ringer and Phear and Dr. Ewart assume that the ventricle is contracted when the second sound is produced. Is this absolutely certain? Some blood must always remain on the ventricular aspect of the semilunar valves, and it is questionable whether, with closed ventricle, the pressure on the arterial side can ever be greater than that on the ventricular side, but that it can suddenly become so much greater as to lead to a forcible slamming of these valves is difficult to conceive. The facts of the case tend rather to show that (as Mr. Mayo Collier has

suggested) the semilunar valves close slowly, the second sound being caused by the sudden stretching of them, which takes place directly the support on their under aspect is removed by the ventricular relaxation. On this hypothesis the degree of accentuation depends, not only upon the degree of arterial tension, but on the promptness with which the dilatation of the ventricle is effected. Assuming this view to be correct, and eliminating the influences of the conducting medium, accentuation of the second aortic sound, with low radial tension, would be due to very rapid ventricular dilatation; while non-accentuation, with high radial tension, such as we may get in fatty heart, would be explicable by assuming a sluggish ventricular relaxation.

I am, Sirs, yours faithfully,

Oct. 6th, 1894.

HARRY CAMPBELL.

"RESULTS OF HOSPITAL AND HOME ISOLATION OF SCARLET FEVER CASES."

To the Editors of THE LANCET.

SIRS,—Owing to absence from home I did not see Mr. Biddle's comments upon my scarlet fever isolation table which appeared in a recent issue of THE LANCET¹ until the end of the following week. The cause of the discrepancy between the rate produced by the sum of the primary and secondary home deaths and that I have given as the total home death-rate is the necessary omission of three deaths among the home cases which I could not classify as primary or secondary for lack of information concerning them, but which must, of course, be included in the total. I need hardly say that it is extremely difficult to compile such a table as this so that it may be at once accurate, explicit, and clear, especially when read without its context in my report. The other points raised by Mr. Biddle hardly call for comment. I cannot, of course, give the number of unnotified cases of scarlet fever, but I think I can safely say that they could scarcely be sufficient to affect my figures materially. Very few cases of measles, rôtheln, or other disorders were sent into Bagthorpe Hospital through mistaken diagnosis, but all that were are, as far as possible, accounted for in my report.

I am, Sirs, faithfully yours,

Guildhall, Nottingham, Oct. 8th, 1894.

PHILIP BOOBYER.

"CONTRÔLE DES PRODUITS ALIMENTAIRES."

To the Editors of THE LANCET.

SIRS,—Allow me to answer the question which you ask me as a postscriptum to my letter, as I am of opinion that the controlling of food is one of the most important hygienic feats and of the most general interest. I think the best way of answering this question will be to give here an English translation of my conclusions read at the Budapest Congress:

1. State interference is absolutely necessary for the repression of adulterations which are committed in the retail trade (especially in shops where a large quantity of different articles is sold). 2. By private initiation it is possible to act efficaciously against the adulterations in the wholesale trade, the controlled manufacturer or importer paying yearly a certain amount, fixed in advance, to the chemist. This sum depends upon the importance of the chemist's work. 3. This system of control can be effected in such a way that the chemist charged with the private control first examines the samples (chemically and microscopically). He then gives a certificate of this analysis, the publication of which by the manufacturer is obligatory, and afterwards takes (buys) at different times samples from the trade to verify whether the sale is performed according to the first analysis.

By this system of control the public is entitled to demand, in any case of doubt, an analysis free of cost of the bought articles from the said chemist in order to ascertain with certainty that the merchandise is pure—viz., that it corresponds with the conditions of sale.

This system has been introduced in Holland for about thirteen years by the undersigned to the entire satisfaction of the public and manufacturers; already over 100 firms (and some belonging to foreign countries) have accepted it. The system can render serious services to the official chemists

¹ Note on the Auscultation of the Second Sounds of the Heart.

² The Condition of the Heart in Debility, THE LANCET, Oct. 24th, 1891.

³ THE LANCET, Sept. 29th, 1894.

¹ THE LANCET, Sept. 29th, 1894.

who are charged with the control of the retail trade, and it is based on the fact that the buyer has the right to claim from the seller a free and sufficient warranty of the quality of the bought articles.

I am, Sirs, yours respectfully,
P. F. VAN HAMEL ROOS,
Chief Editor of the *Revue Internationale des Falsifications*.

"AN ACTION FOR FEES AT DUNDEE."

To the Editors of THE LANCET.

SIRS,—The facts in the above case were not sufficiently stated in your columns to give a clear idea of the dispute. I attended two midwifery cases for Dr. Moon—one of them, acknowledged by letter, thanking me, and stating I would get my share when paid; the other verbally, though not with the same condition as to payment. After an interval of two years I sent an account rather than the usual delicate letter. This elicited the humiliating statement that the patient, whom he had specially thanked me for attending, was three years in arrears, and the other in the hands of a debt collector. Dr. Moon's ultimatum was, since I would not wait till he was paid, that I was to render an account to the patients. I refused to do this, but was willing to take something on account from him. Why he did not push for payment was none of my business. Both accounts were recoverable; one of the patients, indeed, had a salary of over £150 per annum. As regards the code of etiquette, I followed it in every detail. I was offered at the emergency a fee by both parties, but answered that I received remuneration through the family attendant. Before the case went into court Dr. Moon sent one of the patients to pay me, but I would have nothing to do with his patient. Cases of this kind, when fully reported, as was done in the local papers, are not without value both to the profession and to the public.

I am, Sirs, yours truly,
ROBERT MILLER, M.A., M.B., &c.

** We have omitted part of our correspondent's letter, which, we think, introduced fresh matter extraneous to the case.—ED. L.

CERTIFYING UNDER THE LUNACY ACTS.

To the Editors of THE LANCET.

SIRS,—In the leading article in THE LANCET of Oct. 6th on "The Law in relation to the Criminal Responsibility of the Insane" you partially endorse the views of a writer in the *Times* on this subject who merely states the notorious fact that "certifiably insane" is a phrase which "can only mean that a couple of doctors can be found to certify that in their opinion the man is insane"; and you appear to agree with him that such evidence may, at any rate, be open to doubt in a plea of irresponsibility on the ground of insanity. But, while the concurrent testimony of two qualified practitioners may thus, when submitted to legal scrutiny, fail in establishing the irresponsibility or responsibility of an accused person, the same testimony—i.e., the signing of two certificates—is asserted by the daily practice of our profession to constitute sufficient grounds for depriving an individual of liberty and confining him in an asylum for a period varying from a month to a lifetime. In other words, the evidence which, in the former case, may be insufficient to secure the release of a morally guiltless person or the conviction of a criminal is, in the latter, adequate to confine an innocent person for an indefinite period in an institution which at any rate so far resembles a prison that the individual confined in it ceases to be free. Outside the purely medical question of treatment there is the legal question of interference with liberty; and our profession should rejoice, I think, at any measure which would relieve them of this latter invidious duty. That medical men should hitherto have so cheerfully undertaken so unique and awful a responsibility is not a little wonderful. At present I would merely suggest that the opinions of the two certifying medical men, as stated on the face of the certificates, and the necessity for confinement in an asylum, should, as a matter of routine, be subjected, before the removal of the patient, to revision by legal and medical experts acting on behalf of some properly constituted legal authority. Should this suggestion appear to meet with the approval of any of the readers of THE LANCET I shall be happy, if you will kindly afford me space, to discuss it at greater length at a future date.

I am, Sirs, yours faithfully,
LEX.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Medical Institution.

THE first meeting of the fifty-fifth session of the local Medical Institution was held on the 4th inst. Over 160 members and associates were present. Before delivering his address the President, Mr. Chauncy Puzey, referred to the serious injury which recently befel one of the members of the institution, Dr. Joseph Wigglesworth, whilst engaged in his duties at Rainhill Asylum, an injury which would have proved fatal but for the prompt and excellent surgical treatment which he received at the hands of Mr. Damer Harrison, assisted by the resident assistant medical officers of the asylum. He felt sure that all present would agree that a message of sympathy and good feeling should be sent to Dr. Wigglesworth at the earliest opportunity; and also that all would join with him in congratulating Mr. Damer Harrison on the successful result of his exertions. This gentleman will, Mr. Puzey added, have his reward in the life-long recollection that he was the means of saving the life of his friend and former fellow student when it was in the greatest peril. The following resolution was carried unanimously: "The members of the Liverpool Medical Institution desire to take this, the earliest opportunity, of conveying to their fellow member, Dr. Joseph Wigglesworth, the assurance of their sympathy with him in the peril and suffering through which he has recently passed, their hearty congratulations on his recovery, and their earnest hope that he will before long be able to return to the important duties entrusted to him." Mr. Puzey commenced his presidential address with a graceful tribute to the addresses of his predecessors in the chair, which, he observed, had been of such a high standard as to make it difficult for him to follow them. Fortunately they had left him the advantage of being able to speak on a subject in which he was personally interested, and as he assumed that the session would be devoted as usual to the consideration of the most recent advances in the practice of the various branches of the medical profession, he thought it well to look back a little and recall some of the events of interest and of advance within the last thirty years. In considering what subject he should select, Mr. Puzey thought of the various improvements in the details of surgical practice which had taken place since he came to Liverpool, and in answer to the question, "What improvement had held its ground longest, and still appeared likely to do so in much the same form as when introduced to notice?" his answer was, that the "antiseptic animal ligature" held the first place. It was just a quarter of a century since it was introduced by Professor Lister, and it was first used on the human subject, and successfully, in the old Royal Infirmary of this city by Mr. Bickersteth. Mr. Puzey then alluded to what took place before this year (1869) with regard to the best mode of controlling arterial hæmorrhage—acupressure *v.* the old-fashioned ligature, torsion *v.* acupressure, and, finally, the catgut ligature *v.* torsion. Allusion was next made to the late Sir James Simpson's experiments on animals by compressing the arteries with needles, and to the subsequent history of acupressure as applied to the human subject by Mr. Crompton of Birmingham, Mr. William Adams of the London Hospital, Mr. Bickersteth at the Liverpool Royal Infirmary, Mr. Page of Carlisle, Dr. Greig of Dundee, the late Dr. Pirrie and Dr. Keith of Aberdeen. Mr. Puzey then detailed his own experiences of acupressure and that of the late Mr. Cooper Forster of Guy's Hospital. In seeking for the reasons why acupressure, after achieving such brilliant results, had fallen into disuse, he observed that in some cases it was by no means easy to apply, and took much time until practice had been acquired. Then, when many needles were used, it was difficult to accurately close the wound; suppuration occurred not infrequently, and hæmorrhage often occurred, necessitating ligature of the vessels. The subject of torsion was next dealt with and the soluble wire ligature, and finally the "antiseptic animal ligature," which, applied to an artery, virtually surrounded it with a ring of living tissue, which actually strengthened the vessel where it obstructed it. This was dealt with at length, Mr. Puzey remarking that he had some idea of giving his address the title of "A Surgical Revival." For, as he observed, the Listerian ligature is the outcome of the revival of an idea so old that it is wellnigh impossible to say when it was new; and, as he truly remarked, it was impossible for any who commenced surgical work during