the University of Paris. On his return to Aberdeen he practised as assistant to his father, holding a lectureship at the University and acting as medico-legal examiner in Crown cases. In 1883 he was elected corresponding member of the Société de Médecine Légale, being the first Briton to receive this distinction. Dr. Ogston then migrated to New Zealand, where he was appointed lecturer on jurisprudence at Otago University, and was later district health officer until his retirement in 1910. At the outbreak of war he volunteered to resume his old position as health officer at Dunedin and was so engaged at the time of his death.

Correspondence.

"Audi alteram partem."

AN INTERESTING CASE ILLUSTRATING THE USE OF LANE'S PLATES.

To the Editor of THE LANCET.

SIR,—A short time ago some strange things were published about the inefficiency of Sir Arbuthnot Lane's bone-plates, the principal reason assigned for their failure being the alleged ephemeral duration of the grip of the screw in bone tissue. In my paper on the Fixation of Simple Fractures, published in the *Annals of Surgery*, January, 1915, I dealt fully with this travesty of fact, but a case operated on this morning probably deserves special mention.

A middle-aged man, a victim of chronic Bright's disease, received a traumatic fracture of right femur, and I plated the fragments 85 days ago. The wound healed by first intention, but firm union was delayed until the ninth week. Three weeks later, when I considered it safe to get him out of bed, the plate was exposed by a long incision through the original scar, was found covered in its entirety by periosteum, and was so intimately welded to the bone that the screw-driver had to be resorted to. The result was that the uppermost screw was quite loose (considerably oxidised) and came away easily; the second, third, and fifth required almost as much force for their removal as for their insertion. The fourth broke off at the head (a narrow circle of oxidation), leaving the shaft firmly planted in the substance of bone; strong pressure forceps, needle-holder, and sequestrum forceps were in turn applied in vain to the projecting portion (2 mm.); at last, at the suggestion of the theatre nurse, a spring-handled rongeur forceps was forcibly and firmly applied, and after four determined twists the screw came forth. I was considerably impressed with the normal appearance of the bone beneath the plate and in and around the screw-holes; there was not the slightest indication of any bone deterioration, of any change in colour, or of any deficiency in circulation. There was not a drop of serum or any other evidence of irritation either under or about the plate. To all intents and appearance it might have been a local anatomical institution. Indeed, it seemed something like supererogation to have interfered with such a solid physiological wound, a feeling rather emphasised by a temporary respiratory collapse (ether), necessitating artificial respiration, just as the dressing was applied.

I should have mentioned that firm union had taken place, with absolutely normal alignment, so much so that it was difficult to detect the old line of fracture, particularly as there was no trace of callus left.

I should think that the factors in this case—poor vitality and slow union in a patient afflicted with chronic Bright's disease, plus the retention of a large plate with five screws for 85 days in the tissues—constitute a fairly efficient test as to the practical longevity of Lane's screws.

I am, Sir, yours faithfully.

JOHN O'CONOR, M.A., M.D. T.C.D.,

Senior Medical Officer, British Hospital, Buenos Aires.

Nov. 12th, 1917.

THE INTERPRETATION OF CERTAIN ELECTRO-PHYSIOLOGICAL PHENOMENA.

To the Editor of THE LANCET.

SIR,—When Professor Bayliss criticised my work before the Royal Society of Medicine he based his criticism to some extent upon statements said to have been made by me. They were not made by me.

The report of my paper in your current issue inadvertently does me the same injustice. I am made to say that as we progress from the violet to the red end of the spectrum there is a discharge of electricity of ever-increasing intensity. This is nothing short of nonsense. I said—

"We are told upon the authority of Clerk-Maxwell and Sir Oliver Lodge that light is an electro-magnetic disturbance of the ether. Optics is a branch of electricity. I suggest for your consideration that the potential, the electromotive force, so to speak, of light must rapidly increase as we progress from the red to the violet end of the spectrum, and that there must be a discharge of electricity of ever-increasing intensity."

Trusting you will allow me to make this correction.

I am, Sir, yours faithfully,

West Norwood, S.E., Jan. 7th, 1918.

A. E. BAINES.

BACK PRESSURE AS A CONSEQUENCE AND AS A CAUSE OF HEART FAILURE.

To the Editor of THE LANCET.

SIR,—With the line of argument pursued in Dr. Harrington Sainsbury's letter of Dec. 8th, 1917, under the above title I find myself in complete agreement. Indeed, in maintaining the importance of cardiac valvular competency in THE LANCET of June 16th, 1917, I stated some facts which form the substance of his demonstration of the existence and nature of that back pressure which is regarded as an obsolete conception by some, for reasons, as he remarks, "more than inconclusive." Agreeing, as I do, with him on the position he has so lucidly set forth in his letter, I should not have considered myself justified in again encroaching on valuable space in your journal on this topic, were it not to call attention to a point which is not, I believe, quite realised, and the recognition of which is of practical importance.

It may be questioned whether stasis in the capillaries and venules is not in certain circumstances largely an initial rather than final event, as Dr. Sainsbury regards it. I feel disposed, indeed, to maintain that the spasm of the arterioles with which for long we were familiar, as the incentive to cardiac embarrassment in certain cases (notably in those with anginal and anginoid attacks, which are relieved by the administration of nitrites) is, in most cases, a venule and capillary stasis, due to defective left ventricular action propulsive and aspirative, which the heart resents. In some cases it expresses such resentment by cardiac pain, and in all cases by an excited action which is primarily a natural effort at recovery of power. My reason for holding this view is that I have found the failing and embarrassed heart, prior to the period of complete and final collapse, to register a definite *rise*, not fall, of pressure. Such a rise on the recovery of ventricular power unquestionably falls when the phase of failure has passed or been ameliorated. Similarly, with more pronounced venule and capillary stasis, associated with anasarca and accompanied or not, as the case may be, with effusion into one or more serous cavities, drainage of the fluid and relief of venule and capillary stasis and compression, I have found to be associated with a quite definite fall both in systolic and diastolic blood pressure, and this with a general improvement and sense of restored comfort on the part of the patient.

This seeming paradox of increased blood pressure in a failing heart, of the existence of which anyone may convince himself, is only partly explained by the rescuing action of the accelerant and augmentor nerves upon the embarrassed organ. It is chiefly due to venous stagnation and serous overflow, which are attributable to what has quite intelligibly been termed "back pressure." Peripheral venule and capillary stasis may, however, exist without noticeable oedema, effusion being a later phenomenon. When oedema is absent stasis is indicated by augmented action of the heart associated with raised blood pressure, and it may also be by the presence of a small or large amount of albumin in the urine. Indeed, the static and transient albuminuria, so frequently found in young subjects, is rather indicative of a temporary cardiac inadequacy than due to an essentially local cause, and the subject evincing it has, for the time at least, to be treated with circumspection. In the pulmonary venous system, which is accessible to auscultation, the earliest indication of back pressure is to be found in the easily detected and reversible crepitation—the *œdème à bascule*