Correspondence.

"Audi alteram partem."

"A VICTIM TO SCIENCE": X RAY MARTYR.

To the Editor of THE LANCET.

SIR,—The whole medical profession will, without doubt, greatly appreciate the exceedingly kindly action of Sir William Treloar in bringing to public notice the lamentable condition of Mr. Cox, one of the most truly pathetic cases of scientific martyrdom the world has ever known, and will, I am sure, show considerable practical sympathy with this suffering "victim to science" by a hearty and generous response to Sir William Treloar's appeal.

Early in December last it was my painful experience to visit Mr. Cox, three weeks after his right arm had been amputated, and a more pitiable case I have never witnessed in any human being during my 32 years' professional career.

Sir William Treloar in his letter of Jan. 11th to the *Daily Telegraph* truly describes the excruciating agony Mr. Cox has endured for the past six years, which must have been borne with a fortitude beyond conception, and the many very serious and soul-wearing operations he has been compelled to undergo even to maintain the life that must be almost bereft of human consolation, but words cannot depict the awful condition of the man who has sacrificed his living and shortened and distorted his life for the benefit not only of his country but of the whole human race. His suffering, his martyrdom to the sacred cause of science means the alleviation of pain and sickness in the future of countless thousands of suffering and tortured human beings throughout the world.

This "Victim to Science" has indeed made the English nation his debtor by the extreme efforts he put forth during the dark period of the South African War, as mentioned in Sir William Treloar's communication to the *Daily Telegraph* in the following words: "Working day and night testing the appliances to ensure the utmost value of the X ray apparatus for the use of the English surgeons at the front in the South African War."

To Mr. Cox is also largely due the important invention he worked out with Mr. Hall-Edwards by means of which not only is the position of a bullet located but also its depth, so that a surgeon can now remove an obstacle with a minimum amount of suffering to the patient. Mr. Hall-Edwards, Mr. Cox's co-worker, who lost both his hands, and who, I am pleased to say, has recovered in health and, I understand, is pursuing his profession, was rightly shown his country's gratitude by being granted a pension from the Civil List, but poor Cox, whose shattered health is beyond all doubt irrecoverable, has not only lost his right arm and the middle finger of his left hand, which left hand is withered, but he is totally incapacitated and precluded from earning his living in consequence of his devotion to duty which culminated in contracting the terrible and painful malady of rodent ulcer and a most serious cancerous condition attacking his face, chin, and jaw.

Mr. Donnithorne, in his letter to the *Daily Telegraph* of Jan. 12th, undoubtedly strengthens Sir William Treloar's appeal by the statement that, "Thanks largely to the improvements originated by Mr. Cox cases of martyrdom such as his will be unheard of among future X-ray workers."

Mr. Cox was always ready to give the treatment freely to poor people who could not afford to pay. On the occasion of my visit Mrs. Cox had been occupied for two hours dressing her husband's terribly affected face, and I agree with the Reverend T. Rippon's statement in his letter to the *Daily Telegraph* of Jan. 13th: "I know not who to admire more, the patient sufferer in his agony or the brave wife who nurses him."—I am, Sir, yours faithfully,

FREDK. WM. ALEXANDER, M.R.C.S. Eng., &c.

Hardy-road, Blackheath, S.E., Jan. 18th, 1910.

PS.—Any subscriptions with a view to alleviating his most piteous sufferings will be gladly received and gratefully acknowledged by Sir William Treloar, if sent to the "Cox Fund," 69, Ludgate-hill, London, E.C. Cheques to be crossed London, City, and Midland Bank, Ludgate-hill.

ASEPSIS AND ANTISEPSIS.

To the Editor of THE LANCET.

SIR,—Sir Watson Cheyne contends that there are only three answers to the facts which he has brought forward. The second answer is to show that results as good, if not better, can be obtained by methods other than the antiseptic method. In our paper of November last we attempted to show that at the same hospital, with the same surgeons, seven in number, working during 1906 under "antiseptic," and during 1908 under "aseptic" conditions, and with their results tabulated by the same individuals making the same inclusions and exclusions of cases, the figures, so far as they went, seemed to point in favour of the "aseptic" method. Our figures may not be good, but it is possible that they do include individual results which are as good as those of Sir Watson Cheyne. But this personal equation, which, to our regret, Sir Watson Cheyne introduced into his remarks on our paper, was the very thing we wished to avoid, and it does not come within our province to extract these personal statistics out of our figures. The only really fair method of comparison would be for an independent surgeon to collect from all the London hospitals the results (1) of those surgeons using the "antiseptic" method; (2) of those surgeons using the "aseptic" method, and to exhibit them side by side.

We are, Sir, yours faithfully,

HERBERT S. PENDLEBURY.

IVOR BACK.

Brook-street, Grosvenor-square, W., Jan. 17th, 1910.

To the Editor of THE LANCET.

SIR,—Sir Watson Cheyne says "there are only three answers to the facts which I brought forward in my paper of Jan. 1st: (1) to admit their importance, and look into the methods by which they were obtained; (2) to show that results as good, if not better, can be obtained by other methods; and (3) to throw doubt on the accuracy of the observations and the judicial care which had been exercised in classifying them."

To deal with the third and least important point first. I am sorry that Sir Watson Cheyne should have thought that I intended to throw doubt upon the accuracy of his observations. In assuming this to be my attitude he has missed the point of my remarks, which was to ascertain whether his criterion of wound infection was the same as my own. Since that criterion is the same—namely, the clinical observation of even the slightest trace of pus visible to the naked eye—I am satisfied that the comparison of the sets of figures given below is a fair one.

The first point can be as readily dealt with. It was, of course, the recognition of the importance of Sir Watson Cheyne's statements which led me to look into the methods by which they were obtained. Those methods include not only the details of his technique but also the criteria upon which the results were judged.

Having obtained answers to both these points from his letter and from the Bradshaw lecture to which he referred me, I am now in a position to gratify his desire to be answered according to the conditions of his second postulate. I think that the comparison which I am able to make is a fairer one than that which Sir Watson Cheyne took in his somewhat exultant paper on the subject of the St. George's statistics. As I pointed out in my previous letter, it was unfair to compare the figures of an individual surgeon with the collected statistics of a number of different operators. Moreover, as I read it, Mr. Pendlebury and Mr. Back were not putting forward their figures as the best possible results of the aseptic system, but in order to show the superiority of that system in the hands of the same operators.

I am well aware of the fallacies which attend the drawing of general conclusions from small numbers of cases. In this connexion the thousand odd cases tabulated by Sir Watson Cheyne was a small number, and those of my own of which I have accurate records—namely, of the two years during which I was resident assistant surgeon at St Thomas's Hospital, and of the years 1908 and 1909—are still smaller. I have, however, been able to balance this drawback by tabulating the results of the last seven years of the late Mr. Clutton's personal cases at St. Thomas's. I do this because the details of my own methods are founded upon,