

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his Correspondents. No notice is taken of anonymous communications.]

The late Captain Brome

A SHORT time since I announced in your columns the decease of Captain Fred. Brome, late of Gibraltar, and well known to many of your geological readers for his great and successful labours in the exploration of the caves and fissures of the Rock. I then stated that Captain Brome had left a widow and eight children, wholly unprovided for; and this is literally the case. My object in this communication is to state that his numerous and warm friends in Gibraltar, and at Weedon where he died, have already commenced the collection of a fund for the relief and maintenance of his helpless widow and family, and to request that you will allow me space to say, that I shall be happy to receive and forward any contributions in aid of this fund.

Captain Brome was for twenty-two years Governor of the Military Prison at Gibraltar, from which post he was displaced towards the end of 1868. His removal to England last year with his large family necessarily involved him in considerable expense, incurred in the hope that his new appointment at Weedon might afford him a home and some prospect of providing for his children's education. These hopes, however, were destroyed in less than twelve months by the announcement that the prison at Weedon was to be disestablished. The anxiety lest he should thus be left without prospect of employment, and, as he feared, without any provision for the wants of his family, caused him such distress that, although a strong and energetic man and in the prime of life, he gradually sank, and died from mental depression on the 4th of March.

It is impossible to conceive a case more deserving of sympathy and support than that of his unhappy widow and children, or one more deserving of recognition by all lovers of science than that of Captain Brome, who had gratuitously devoted several years of his life, and the most unwearied personal labour, simply because he believed, and truly believed that he was promoting a scientific object.

Subscriptions will be received by me, and, I am kindly permitted to say, by Mr. W. S. Dallas, at the apartments of the Geological Society, Somerset House.

32, Harley Street, May 6.

GEO. BUSK

Relations of the State to Scientific Research.—II.

SCIENTIFIC men are of three kinds: the young, the middle aged, and the old. It is difficult to say which needs help the most; but there is one work in which they can all severally take part, and from which they can each obtain that comfortable leisure which is the one thing needful for original research. That work is simply the work of teaching. And here let me not be misunderstood. By teaching science, I do not mean the miserable practices now carried on, but teaching on a scale commensurate with the great needs of a great nation, and in a way calculated to bring about the blessings that follow inevitably on true, thorough scientific knowledge.

To illustrate my meaning, let me take a particular science, chemistry, as an example. Of the whole population of England there will certainly be a certain number of men whose minds are so set on chemistry that they would be willing to accept, while in the prime of life, with gladness the offer of posts which, while taking up about half their time in teaching chemistry, would enable them to devote the entire other half to original work, and yet bring up their families in decency and order. What the exact number of such men would be, I do not care to know; it probably would never be very great; it certainly would never exceed the demand for men to fill chairs of chemistry at properly organised laboratories established at various points all over the kingdom.

Now a livelihood may be gained, and even a fortune made, by teaching, but this can never be done by working half time. But such a man as we are picturing must work half time only; and therefore the receipts from his actual teaching must be subsidised from elsewhere—the chair must be endowed by the Government, either local or imperial.

The occupant of such a chair would not be an idler. No idler would seek a post which would always entail a large amount of labour, and never would bring wealth. At the very worst, even

if he did no original work, he would earn his salary by teaching. If he taught badly, that is a thing which can readily be recognised by competent persons, and he could be dismissed. The very desire of a man to take such a position would be of itself almost a guarantee that he would perform its duties properly, and bring forth the fruit expected of him. And calling to mind the well-known law of human nature that the more work a man has to do, the more he over-abounds in work, we may feel sure that the half life which teaching leaves to such a man will be filled with a whole life's exertion.

The work of such a man would lie almost exclusively in the way of systematic lectures and general superintendence of the laboratory. I need hardly say that that ought to be a small part only of the total teaching done in the place. There must be attached to the professor two, three, or more recognised assistants, who would be always in the laboratory, who would personally direct and nurse the students, who would carry on original work, partly on their own account and partly on behalf of their master, and who would receive a moderate fixed salary, sufficient to enable them to live without having to look to any other extraneous sources of income. Such men would of course be embryonic professors; and I know of no more pressing need than this, of finding livelihoods for young promising men in the interval between the studentship and the professorship. I weep when I think of how many admirable young men become outcasts to science for lack of these. It has been so with myself: full of zeal for science in my youth, and, what is more important, rich in the germs of large ideas, which I have since seen flourishing in other men's minds and bringing forth fruit of fame, I could find no resting place. I threw myself into practical money-getting life, with the hope that after a while my gains would provide me a comfortable afternoon of old age, in which I might return to my former love. I now have both time and money; but, alas! my mind has grown stiff in the ways of the world: the old ideas of my youth are now vain shadows which I cannot grasp. I find myself a wretched puddler, full of egotistic hobbies, productive of little oddities and trifling curiosities, but bringing forth nothing of real value or permanent worth. The young men make fun of me, and the chief men treat me with a courtesy which is at once patronizing and forced.

What is true of chemistry is, with minor differences, true of the other sciences. Under such a scheme as I have pictured, both young and middle-aged would be provided for. With a sufficient number of laboratories, some large and some small, some with eminent, some with useful men at their head, some with many, some with few assistants, it would come to pass that on the one hand the younger men would work under the beneficial influence of their chiefs, while on the other the men full of thoughts would find heads and hands near them to carry out their ideas. Is it not a crying shame that at the present time such a man as Huxley is completely isolated from the younger biological workers, and instead of, like Cuvier, having a large laboratory manned by an enthusiastic body of scholars, ready to dissect everything after its kind, is penned up in an abominable den in Jermyn Street, and distracted by the demands of triflers; has, in fact, to work upon the world through the bars of a prison cage? Is it not also a shame that one of the acknowledged foremost teachers of mathematics in Europe, in the focus of our national life, should feel himself compelled to forsake the work of teaching for a subordinate unscientific appointment in a University, when his right place would have been as instructor of the rising mathematicians of England?

But besides teaching, there is the task of examining the taught. And here again is a source of easy livelihood. I do not mean such kind of examinations as are carried on at present; that wretched system of papers, worked through at the rate of so many dozen a day and paid for at so much a hundred—work done by steam and ending in smoke. I mean a thorough system of practical examinations, carried on slowly and quietly, by a staff of professors and their assistants, and paid for in respect of the immense contingencies that hang upon the result and of the vast responsibilities of the examiners. I have not space to dwell on this; but it is a point which wants working out thoroughly and well. The task of examining ought to be one of the richest sources of income to a large number of scientific men, instead as now the odd pence of a few.

I maintain, then, that teaching and examining combined would support all the young and middle-aged scientific men in this country that have sound reasons for devoting themselves to a scientific life, and support them honourably and productively.]