On adopting a convention governing signs, couple-moment can be represented, for a normal axis, by an algebraic sum of areas. The application here also of the projection-process is an immediate consequence, and it is seen that the values of couple-moment for all parallel axes are equal. The final step in making the transition to the axis-vector is the convention according to which areas are represented by lengths properly laid off on their normals. The process of reasoning for moment of momentum is entirely parallel to that outlined for moment of force. And it can be shown (cf. Heaviside, "Electromagnetic Theory," i. p. 181) to cover the cases of angular velocity and acceleration. For the representation of an area by a length of its normal is the basis of the idea in the vector product of two vectors. The argument of the present instance forms a good elementary introduction to that conception. F. SLATE.

University of California, April 24.

The New Comet.

ALTHOUGH others besides myself have probably noticed the remarkable inconsistencies in the published reports of the new comet, it seems worth while to draw attention to them. Its reported position for April 25, May 2 and May 4 are based on telegrams from the Cape and Peru, and there seems no reason to doubt their correctness. If, however, they are accurate, the comet could not have been seen in England in the morning, as at no time did it rise till after the sun. Yet Mr. Chambers saw it at Eastbourne at 3.5 a.m. on the 2nd, and a correspondent in the *Daily News* says it was fifteen degrees above the southern horizon at 3.30 a.m. on the 7th. E. C. WILLIS.

Southwell Lodge, Ipswich Road, Norwich, May 13.

Blood-Rain.

IN view of the recent letters in *NATURE* regarding the fall of red rain in Italy, the following extract from Roger of Wendover's *Chronicles* of the year 1223 may possibly be of interest:—"In the same year it rained blood-coloured earth at Rome for three days, to the great wonder of numbers of people (vol. ii. p. 444 of Bohn's edition of Wendover's "Flowers of History.") It is rather curious that so miserably superstitious a *gobemouche* as Wendover should have described the phenomenon so accurately instead of calling it a rain of blood.

Polperro, Cornwall.

F. H. PERRY-COSTE.

THE ANTI-VIVISECTION SOCIETY AND LORD LISTER.

THE Anti-Vivisection Society held its annual meeting last week in St. James's Hall. We know these annual meetings; they are accompanied by an annual crop of distortions of scientific work and an annual volley of scurrilous charges against scientific workers and philanthropic administrators. Beforehand, all the perseverance of the accomplished party "whip" is drawn upon to get these meetings together, and afterwards all the ingenuity of the unscrupulous pamphleteer to boom in the Press what has taken place at them. The usual copies of certain daily papers marked in blue pencil under the name of Mr. Stephen Coleridge are sent out broadcast, reporting in detail the sentiments of the audience and the horrors of so-called vivisection. Were this all it might well be passed over in contemptuous silence, but this year it pleased the meeting to impugn the philanthropic impartiality of one whom all the scientific, and indeed cultured, world delights to honour.

Mr. Coleridge gravely informed his audience, after having discoursed inaccurately on Lord Lister's scientific work, that this man of science was the intimate friend of fifty-eight licensed vivisectioners, presumably because he had signed a certificate exempting them from the use of anaesthetics in their scientific experiments. These certificates were signed by Lord Lister in his capacity as president of the Royal Society, and the probability is that personally he was not acquainted with half-a-dozen of the licensees. Mr. Coleridge carefully avoided telling his audience that the vast majority of these "horrid vivisections," in which the use of anaesthetics was dispensed with, were simply inoculations, or, in other

words, mere pin-pricks; also that by the Prevention of Cruelty to Animals Act only very few persons of high scientific standing and training can sign these certificates, and that the president of the Royal Society is one.

Mr. Coleridge next turned his attention to scurrilous charges against Lord Lister, in particular, as chairman, and the committee, in general, of the Prince of Wales's Hospital Fund. He impugned the integrity of these gentlemen in that he stated they had given larger grants per bed to those hospitals which either had licensed laboratories attached to their medical schools, or had upon their staffs physicians and surgeons who were actually vivisectioning, or had at some past time done so, than to those hospitals which had no connection either direct or remote with vivisectioners. Further, that the Hospital Fund Committee had done this with the express object of encouraging so-called vivisection. Mr. Coleridge deduced the necessary corollary from this assertion, and stated point-blank that the Prince of Wales's Hospital Fund had simply been used to endow vivisection on a huge scale.

If we examine the facts we shall find that any hospital in London of any eminence whatever and performing philanthropic work of any magnitude, has upon its staff physicians and surgeons who have at one time or another experimented on animals. The small hospitals received small grants because their need was relatively small, and the large hospitals large grants because their need was relatively large, not because the former were unconnected and the latter connected with so-called vivisectioners. Mr. Coleridge did not include in his speech the fact that he himself had endeavoured to strike a bargain with a London hospital, promising this institution the pecuniary support of the Anti-Vivisection Society if it would exclude from its staff all those whose medical knowledge had been derived from experiments upon living animals. The reply of this institution is worthy of record: it refused to allow any other considerations than those of medical or surgical efficiency to guide it in the choice of its officers.

This point has just now a very special interest, in that we believe that vivisection is to be made a party cry in the case of contributions to the Hospital Sunday Fund. Contributors are to be asked by the Anti-Vivisection Society when giving their contributions to demand that they shall only be devoted to hospitals having no connection with vivisectioners or vivisection. So valuable have the results of experiments upon animals been to medical science that scarcely a hospital can be found independent of medical men who have derived their knowledge from them; and the Anti-Vivisection Society, with all its ingenuity and perseverance, cannot find amongst the ranks of its supporters a single medical man or indeed biologist of eminence. It is earnestly to be hoped that this fact will have its full weight with all contributors to hospitals, and that they will give their donations as they have done before, resting assured that their money will be duly apportioned by competent philanthropists accustomed to weighing justly the relative claims of charitable institutions, and not easily influenced by the clamourings, however loud, of ignorant partisans.

THE ARMY EDUCATION COMMITTEE.

WE are glad to learn that Sir Michael Foster has been added to the committee appointed to consider the present methods of selecting and training officers for the various branches of the Army. As stated in our number of May 2 (p. 23), this committee, as originally constituted, consisted of Colonel Jelf, Lieut.-Colonel Hammersley and Captain Lee, together with the Head Master of Eton, the High Master of St. Paul's, and the Right Hon. A. Akers-Douglas (chairman) and Captain Cairnes (secretary). Such a change as that