necessarily produce will not change. It will be that indicated by the arrows, namely, B D A. The direct and ordinary movement in the radiometer is thus explained in the simplest manner.

JOSEPH DELSAULX, S. J.

11, rue des Récollets, Louvain, Belgium, July 22

A Brilliant Meteor

LAST Tuesday evening, July 25, at three minutes past 10 P.M., a magnificent meteor was observed here. Its first appearance was hidden from me by a tree, but the rest of its long course was open to view. It travelled straight from S. to N. between the directions S.S.W. and W. Its apparent size was that of Jupiter. When first seen it was of a brilliant violet colour. This changed to bright green and red, and towards the end it was, I think, green in front, red behind, and where a number of globules which broke off seemed to follow it. The body of the meteor was pear-shaped. No luminous train was left after its disappearance. The motion was much slower than that of common aërolites, and probably the phenomenon lasted about two seconds. It would be interesting to know what was seen of it in the West of England and in Ireland.

Pembroke Lodge, Richmond Park, F. A. R. RUSSELL
July 28

ON Tuesday, the 25th, I was seated with my eyes looking westward, when at 10.5 P.M. a most remarkable meteor passed before my vision, which exceeded in brilliancy of colour and in dimensions any phenomenon of the kind that I ever witnessed in the whole course of my life.

The main body of the meteor was a vivid emerald green, with a large spherical head tapering away into a tail of fiery red colour, followed up by a luminous track.

Its trajectory was almost horizontal, emanating from the constellation of Aquila, passing through that of Hercules, curving slightly downwards, and passing a few degrees beneath Arcturus; a short distance northward of that great star the meteor suddenly collapsed with a bright effulgency, and vanished from sight.

Its velocity appeared as being somewhat slower that what I have observed on similar occasions. It was present to the observer for more than five seconds of time, sufficient time to leave on the mind of the observer a distinct impression of the meteor's various aspects.

Owing to the dry condition of the atmosphere, the apparent proximity of the meteor was very striking; the brilliant flash of colour at first sight produced the effect that a large rocket had been fired off in the vicinity, for it was very similar in colouring and shape to many rockets displayed by pyrotechnists.

Soon after the meteor had disappeared I observed three very faint shooting-stars to fall from a high altitude downwards to the track which the meteor had taken.

I furnish you with these observations, which may interest your readers, especially those who were fortunate enough to observe this splendid phenomenon. ERAS. OMMANNEY

6, Talbot Square, W., July 29

D-line Spectra

LAST March you were good enough to publish in NATURE (vol. xiii., p. 366) a request for some explanation of the extremely different, and indeed opposite, reactions afforded to *boric acid* by the yellow or D-line spectral flame emitted from soda or its salts, and from platinum respectively, when treated with the blowpipe.

No explanation has been vouchsafed; and it may be now added to that fact that, among the millions of substances in nature emitting this D-line producing-flame when heated before a blowpipe, sodium salts are the *only ones* which give the reactions of sodium; all others affording extremely marked reactions of an *exactly opposite* character. W. A. ROSS

July 24

Pyroxidation

WILL any of your chemist contributors be so kind as to afford in your columns an explanation of the following phenomenon?

If we heat before a blowpipe on a piece of aluminium plate (which has a side of four inches perpendicular to the blowpipe flame) a fragment of pure antimony, we have three sublimates deposited on the perpendicular side of the plate in the following order:—

(*a*) Sb_2O_5 (strongly reddening litmus paper) *highest.*
(*b*) Sb_2O_3 (faintly " " " intermediate.
(*c*) A *black* sublimate (?) lowest.

I want to know why a substance similar to another, except that it contains two more atoms of oxygen, and has therefore a higher specific gravity, travels perpendicularly up the plate to a more elevated position? W. A. ROSS

July 24

ABSTRACT REPORT TO "NATURE" ON EXPERIMENTATION ON ANIMALS FOR THE ADVANCE OF PRACTICAL MEDICINE[1]

V.

Results of Experiments on Resuscitation.

IN my last communication I described a method of practical study by experimentation which was intended to demonstrate the best means of restoring to life those human beings who by accident are thrown on the confines of death. To thoughtful and feeling minds this study is sublimely solemn, but I see that a writer in one of the contemporaries of NATURE has found it possible, in his zeal against experimentation on animals, to make my observations on the subject the matter of a jest at my expense. In order to render his jest applicable, the writer has also perverted my statement so as to make a simple illustration of a discovered fact appear as if it were presented in the light of the fact discovered. It will be remembered by the readers of these articles that after I had described, in my last essay, the observations relating to the effect of galvanism on expiring muscular power, I enforced the lesson by illustrating the difference of effect that might be expected to occur from carrying an exhausted animal to a place of succour and of making it travel to the place. The writer I refer to states this illustration as the fact which I have arrived at by experiment, and thereupon founds his joke, which he borrows from *Gil Blas*. The circumstance of this criticism has an interest for which I am thankful. It has suggested to my mind something which might not have occurred to it, viz., that in my desire to be very brief in these abstract reports I have neglected to introduce a few detailed arguments of first importance, which ought not, perhaps, to have been omitted in any case, but which I am now compelled to supply.

After the discovery of the process known as galvanism, and the researches conducted by Galvani, Volta, and Aldini on the influence of the galvanic current on animal life, the application of the current for the purpose of resuscitating persons who were apparently dead became the common practice of medical men. The extraordinary experiments conducted by Aldini at the College of Surgeons during the day of January 17, 1803, on the body of a malefactor named Forster, made an impression on men of science which was probably without parallel. The malefactor, after being hanged and after being exposed for a whole hour to a temperature two degrees below freezing-point, was carried to a house near to Newgate, and, in pursuance of the sentence, was delivered over to the College of Surgeons. The master of the College, Mr. Keate, here re-delivered the body over to Aldini, who was the nephew and devoted follower of Galvani, and the action of the galvanic current upon the dead man was demonstrated. I need not describe minutely the strange phenomena that were observed during the demonstration. Carpue, the anatomist, took share with his pupil Hutchins in the anatomical part; Cuthbertson, an eminent mathematical instrument-maker, the Browning of that day, directed and arranged the galvanic apparatus, which consisted of three troughs of forty elements each; Mr. Keate took duty in observing, and Aldini directed the operations. Fifteen experiments were carried out, and such were the muscular movements excited in the dead man by the current that the most sanguine expectations

[1] Continued from p. 252.