

jects on the time after death, or rather after the last respiration to show that contraction of the muscles could still be induced by electricity, when applied to them either in the form of the interrupted or of the continuous current. The excitability of the muscles appears to be the same as before death, for a short time after death has taken place; then contractility departing rather sooner in chronic disease than in cases where death has been occasioned by an accident or other sudden event. In most cases contractions may be excited for from  $1\frac{1}{2}$  hour to 3 hours after death. The reaction to induced currents falls in a centrifugal direction; the sphincter palpebrarum retaining its irritability longest. From these experiments he was led to think that the absence of irritability in the muscles might be taken as a good means of distinguishing between real and apparent death, and accidentally very shortly afterwards a case of apparent death in an hysterical patient permitted him to satisfy himself as well as others of its value.

5. C. Heitzmann gives the results of his researches on healthy and inflamed bone, and agrees with Rokitsansky, that blood is formed in the mother shells that under certain conditions appear in bone.

Other physiological papers are, one by Prof. Bizzozero, of Pavia, on the so-called endogenous formation of cells. Another by Dr. Kolisko, on the mechanics of the heart, and another by Schiff on the round ligament. The papers dealing with therapeutics, are (1) an essay by Dr. Basch on the action of nicotin, especially bearing on the question of the relation of the blood pressure to the periods of rest and contraction of the muscular tissue of the intestines; (2) a number of minor communications from Schroff containing the results of investigations made in the Vienna Pharmacological Institution. The pathological papers of most importance are (1) the remarkable essay of Losterfer which has led to so much discussion in Germany, in which he declared that he was able to diagnose a certain specific disease (syphilis), by a microscopic examination of the blood; (2) an account by Dr. Philipp Knoll of a case of the rare disease termed paralysis pseudo-hypertrophica; (3) an essay by Dr. J. Popoff on pneumomycosis; (4) investigations on the organisation of thrombus by Dr. Durante; (5) on the changes taking place in ligatured vessels by Dr. Dudokaloff; (6) the diagnosis of disease of the optic thalami. Besides these are several others. The plates are very fairly executed, and our readers will see that Prof. Stricker has done good service in publishing these papers and essays in a collected form.

H. P.

## LETTERS TO THE EDITOR

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

## Reflected and Transmitted Light

[The following correspondence has been sent us by Prof. Tyndall]:—

Cliff House, Greenhithe, April 8

A CURIOUS thing in connection with colour having come under my notice, and never having before seen it remarked in any scientific journal, I take the liberty of bringing it before your notice; if it is new to you it will interest you, if not I must ask you to excuse me for troubling you. On looking through a piece of blue glass (of which I forward you a sample) at a plant or tree lit up by the sun, these leaves that are lit from behind, or rather by transmitted light, appear of a rich crimson, the other leaves, seen only by reflected light, merely take the colour given by the glass. In the case of a geranium plant, these leaves become almost the same colour as the flowers. As a scientific fact, if new, it is curious.

To Prof. Tyndall

WALTER B. WOODBURY

THE observation you describe is interesting, and if you have taken care to exclude subjective colouring, is, I should think, to be explained in this way.

The light from your leaves contains a quantity of red: it appears as a yellowish green, I suppose, and contains little or no blue.

Your glass is of a kind which transmits the two ends of the spectrum while cutting out its centre. It is very hostile to the yellow, hence, on placing it before the eye, and receiving through it light which has already been deprived of its blue, the glass quenches the yellow, and red alone remains.

April 9

JOHN TYNDALL

I detained this note until the arrival of sunshine, which enables me to say that the explanation here given is correct. Employing a blue medium, which does not transmit red you get no effect of the kind you describe. The tender leaves of spring are best suited for the experiment: the hard green leaves of ivy, for example, do not produce the effect.

It is not necessary, nor indeed desirable, to have the leaves between the eye and the sun.

April 15

## The Zoological Collections in the India House

PERMIT me to offer my testimony in general support of the view taken by P. L. S., in the able article which appeared in your last number. Rather more than a year ago it was a matter of importance for me to examine the type of Horsfield's *Turdus varius*, contained in the Museum of the Old East India Company. I applied in the proper quarter for leave to examine the specimen, but received a polite answer informing me that it was inaccessible. The official statement therefore said to have been made in the House of Commons on March 14, 1871, by the Under-Secretary of State for India, as to the collections being still "available to men of science" is untrue, and I trust that some member of Parliament will not allow this subject to be lost sight of, but, by continually recurring to it, compel the Administration to open their valuable Museum to the public—its owners. To the two solutions of the difficulty suggested by P. L. S., allow me to add a third. If neither the authorities at South Kensington nor in Great Russell Street can properly exhibit the East India Museum, let it be transferred (of course under suitable guarantee), to some other National Institution.

Cambridge, April 22

ALFRED NEWTON

## On the Affinities of Dinoceras and its Allies

IN the April number of the *American Journal of Science and Art* there is a paper by Prof. O. C. Marsh, entitled "Additional Observations on Dinocerata," in which we learn that Dinoceras has only four toes. The author still continues to consider the genera *Dinoceras* and *Tinoceras* a separate order intermediate between the Proboscidea and the Perissodactylata. The facts at my disposal are now sufficient for me to state with considerable certainty that *Dinoceras* and *Tinoceras* are members of the Ungulata Artiodactylata. The following are my reasons:—

1. The palate is complete between the posterior molars, as is seen clearly in a photograph of *Tinoceras grandis* (*Loxolophodon cornutus* Cope) in my possession.
2. There is no third trochanter to the femur (Marsh).
3. The astragalus has a well-marked cuboid facet (Marsh).
4. The posterior molar has a small but well developed third cusp, as proved conclusively by an inspection of my photograph.
5. The anterior premolar is wanting, six only being present.
6. The premaxillæ are edentulous.
7. There are four toes, an even number.

A. H. GARROD

11, Harley Street, April 22

## Auroral Display

A SHORT but very brilliant display of aurora was visible here this evening, making its first appearance soon after sunset, and reaching its greatest intensity between nine and ten o'clock. Some notes of its phases which I was able to make in a perfectly clear sky will perhaps afford useful comparisons with descriptions furnished by observers of its appearance at other places.

The sun had set behind cirrus clouds, surrounded by a slight halo, and with a faint mock-sun on its northern side. As darkness approached, the hazy clouds in the north-west were surrounded by a faint light, and at half-past eight o'clock luminous streaks here and there across the otherwise clear sky, apparently