

Supplementary Note to Dr. Davy's Paper on Birds; received November 25, 1865.

Mention is made in the paper referred to of the comparatively low temperature of certain birds. Another example of the same kind occurs in the goose; in two instances I have found its temperature *in recto* 104°, and in a third 103°·5. The trials were made in November; the geese had not previously been confined, were about seven months old, fully feathered (few birds have a warmer clothing), and the weather at the time was moderate; the temperature of the open air between 40° and 50° Fahr.

Notice is also taken of a bird, the grouse, not remarkable for power of flight, having air in its femora as well as in its humeri. I have since found another example of the same kind in the pheasant, a bird even of feeble flight; in no instance, and I have examined several specimens, have I detected marrow in either of these bones.

In reference to the statement implying that those bones of birds which contain air in their adult state, in an earlier stage contain marrow, later observations have led me to infer that, instead of marrow, these bones have their canals impacted with blood-vessels, which in process of the bird's growth shrink and are absorbed.

November 23, 1865.

Lieut.-General SABINE, President, in the Chair.

In compliance with the Statutes, notice was given from the Chair of the ensuing Anniversary Meeting, and the list of Council and Officers proposed for election was read as follows:—

President.—Lieut.-General Edward Sabine, R.A., D.C.L., LL.D.

Treasurer.—William Allen Miller, M.D., LL.D.

Secretaries.— { William Sharpey, M.D., LL.D.
George Gabriel Stokes, Esq., M.A., D.C.L.

Foreign Secretary.—Professor William Hallows Miller, M.A.

Other Members of the Council.—John Frederic Bateman, Esq.; Lionel Smith Beale, Esq., M.B.; William Bowman, Esq.; Commander F. J. Owen Evans, R.N.; Edward Frankland, Esq., Ph.D.; Francis Galton, Esq.; John Peter Gassiot, Esq.; John Edward Gray, Esq., Ph.D.; Thomas Archer Hirst, Esq., Ph.D.; Sir Henry Holland, Bart., M.D., D.C.L.; William Odling, Esq., M.B.; Sir John Rennie, Knt.; Prof. Warington W. Smyth; William Spottiswoode, Esq., M.A.; Paul E. Count de Strzlecki, C.B., D.C.L.; Vice-Chancellor Sir W. P. Wood, D.C.L.

Dr. Robert M'Donnell was admitted into the Society.

Pursuant to notice given at the last Meeting, The Right Honourable Charles Pelham Villiers was proposed for immediate ballot.

VOL. XIV.

2 o

The proposal having been seconded, the ballot was taken, and Mr. Villiers was declared duly elected a Fellow of the Society.

Mr. Villiers was afterwards admitted into the Society. §

The following communications were read :—

I. "On *Calorescence*." By JOHN TYNDALL, F.R.S.

Received October 20, 1865.

(Abstract.)

The paper is divided into ten short sections. In the 1st the experiments of Sir William Herschel and of Prof. Müller on the sun's radiation are described. In the 2nd are given a series of measurements which show the distribution of heat in the spectrum of the electric light. In the 3rd section is described a mode of filtering the composite radiation of an intensely luminous source so as to detach the luminous from the non-luminous portion of the emission. The ratio of the visible to the invisible radiation determined in this way is compared and found coincident with the results of prismatic analysis. The eminent fitness of a combination of iodine and bisulphide of carbon as a *ray-filter* is illustrated, and in the 4th section experiments with other substances are described; various effects obtained in the earlier experiments on the invisible rays being mentioned. In the 5th section the absolutely invisible character of the radiation is established; it is also proved that no extra-violet rays are to be found at the obscure focus. Numerous experiments on combustion produced by invisible rays are also described in the 5th section. The 6th section deals with the subject of *calorescence*, or the conversion of obscure radiant heat into light. In section 7 various modes of experimenting are described by which the danger incident to the use of so inflammable a body as the bisulphide of carbon may be avoided. In the 8th section are described experiments on the invisible radiation of the lime-light and of the sun. In the 9th section the effect obtained by exposing papers of different colours at the dark focus are mentioned; while the 10th and concluding section, deals with the calorescence obtainable from rays transmitted by glasses of various kinds.

II. "Notice of the Surface of the Sun." By JOHN PHILLIPS, M.A. LL.D., F.R.S., &c., Professor of Geology in the University of Oxford. Received October 27th, 1865.

It appears desirable, as a first step to a right theory of the condition of the sun's surface, that the appearances which it presents should be recorded in some systematic way. Photographs will suffice for the distribution of the *spots*, but careful eye-drawings must be appealed to in evidence of the form, arrangement, and intestine motions of the parts of those spots, and eye-drawings with measures are the only means of recording accurately the dotted, areolar, granular, crested, and other arrangements