from the eighth sternite and sometimes from the seventh sternite too, the *Calliphora sternalis*-group being an example.

This sequence of changes that takes place in the terminalia was seen when studying the four following papers:

(a) C. L. Metcalf, *Ann. Ent. Soc. America*, 14, 169-214 (1921), who discusses "the genitalia of male Syrphidae; their morphology, with special reference to their taxonomic significance". Metcalf adds an extra segment to the base of the abdomen and produces a numbering of segmentation that is not followed by other authors. Reduction of his numerals by one brings the numbering to that of the above notes.

(b) G. C. Lamb, *Proc. Roy. Soc. London*, B, 94, 1-11 (1922), who uses the order in his account of "the geometry of insect pairing". Lamb overlooked the fact that the aedeagus is inverted on Syrphidae, so his ideas on the terminalia are in need of adjustment. The correlation between the aedeagus and vagina is not direct but inverse, as Richards found.

(c) H. J. Feuerborn, *Zool. Anz.*, 189 (1922), who discusses "das Hypopygium inversum und circumversum". Feuerborn has overlooked the fact that the "circumversum" form of hypopygium can equally be gained by combining his "inversum" form with the curvilinear form of terminalia described by Metcalf and by Lamb. The hypopygium does not turn through 360° relative to the eighth segment as Feuerborn states, but is derived directly from the Syrphid type as Lamb suggests.

(d) O. W. Richards, *Biol. Rev.*, 2, 322-328 (1927), who discusses "the mechanical relations of the male and female genitalia" when reviewing "sexual selection and allied problems in insects". Richards reaches several conclusions that cannot be retained. The twist of the hypopygium is restricted to one way only throughout the Brachycera, namely from left to right, and the curvilinear development in Cyclo-rhapha takes the same direction. Three segments each take 60° twists, not two at 90° each which Richards suggests.

The treatment of the so-called 'cerci' of authors, as reviewed in the above notes, is in alinement with my manuscript "The Copulation and the Terminal Segments of Diptera"; typescript copies (about 10 pages and 25 text figures) will be made available to authors interested, on application being made to me personally, for with present printing restrictions it is not likely that the paper will be printed for many years.

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Jan. 18.

Colour Measurement

MR. J. W. PERRY¹ quotes previous statements by me in contradiction of the view expressed by T. Smith, R. Donaldson and myself² that the C.I.E. standard-observer tables are not restricted in their application to a specified field size or other observing conditions.

The apparent contradiction arises from failure to appreciate the essential difference between measurement of the quantities occurring in the psycho-

physical relations which determine an observer's personal experience of colour and brightness matching, and measurement of quantities of the kind defined by the C.I.E. tables. It is to the former class of measurements that the statements in question apply; measurement in terms of a public standard, conventionally accepted for technical purposes, was not within the scope of the paper quoted by Perry.

Adequate discussion of the points at issue within the limits of a letter is impracticable, and inadequate discussion would only leave room for further controversy. I propose, therefore, to prepare a statement for submission to the Physical Society Colour Group, where a full discussion may be possible.

Meanwhile it is sufficient to say that there is nothing in Mr. Perry's letter which appears to us to warrant modification of the views which we have expressed in these columns.

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April 7.

¹ NATURE, 149, 247 (1942).

² NATURE, 149, 76 (1942).

First Publication of the Geological Society

It is interesting to learn¹ that an original copy of the "Geological Inquiries", said to be the first publication of the Geological Society, has been discovered in the library of the Sedgwick Museum. When Woodward stated that "No records appear to have been preserved of the printed geological inquiries that were circulated among the members", he was evidently unaware that this pamphlet had been reprinted, apparently verbatim, in A. Tilloch's *Philosophical Magazine*, 49, 421-429 (1817). The queries were also included in full (unnumbered, and without the introduction) by Thomas Walford, F.A.S., F.L.S., in his "The Scientific Tourist through England, Wales and Scotland", London, 1818, 2 vols., 12mo. (vol. 1, pp. 50-55), a copy of which is in the library of the Geological Society. It may perhaps be of interest to add that the latter publication also includes a folding plate, "Geological Table of British Organised Fossils . . . with reference to Mr. Smith's Geological Maps". This is almost identical with Smith's well-known table which appeared in the later issues of the memoir accompanying his map and was also published separately.

One would like to know if the pamphlet is dated, or bears any evidence to show that it was actually published in 1808, or before 1811 (the year in which the first volume of *Transactions of the Geological Society* appeared). It seems strange that it should be included in a monthly scientific journal, without comment, nine years after it had been circulated to the fellows of the Society. It would be most interesting if Dr. Hawkes could provide evidence, either from the pamphlet itself or from the early minute books of the Society, to confirm the date of publication.

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¹ NATURE, 149, 377 (1942).