

Sutton, of the School of Pedagogy, read a timely and exceedingly interesting paper upon the 'Bachelor of Arts Degree,' in which he showed the origin of this ancient honor and its evolution until at the present time it stands for culture, and, in several prominent American institutions, has even become the sole mark of academic training.

The program for the December meeting was of two parts. The first, representing original investigation, consisted of two papers by Mr. E. T. Dumble, formerly State Geologist, entitled 'Cretaceous of Obispo Cañon, Sonora,' and 'Occurrence of Oyster Shells in Volcanic Deposits in Sonora, Mexico.'

Part second was of the nature of a symposium, in which the advancement of science during the past year occupied a conspicuous place. Dr. William L. Bray, discussed the 'Modern Trend of Botanical Studies,' showing clearly and forcibly the enormous strides made within the last few years; he pointed out the differentiation of the science of botany—how it had outgrown the grasp of any one man—and spoke briefly of its economic relations to many important industries.

Dr. Henry Winston Harper discussed the 'Recent Advances of Chemistry.' The solidification of hydrogen was, in his opinion, the most important chemical contribution to science during the past year. From a thermo-dynamic standpoint it is one of the greatest accomplishments of the nineteenth century, as it requires a temperature within 15° C. of the absolute zero. The study of the properties of matter at such extremely low temperatures is a virgin field for original investigation and phenomena of a most startling character may be looked for here. Some of the results of the latest research along this line were brought before the Academy. The advances of chemistry along many other lines were also discussed, especial stress being given to the recent utilization of the Indian corn plant, or maize, not only of the grain, but of the entire plant—pith, stalk and leaves. Professor Harper closed his discussion by reference to some recent developments of chemical theory, devoting particular attention to 'Werner's Theory of Coördinated Types.'

At a meeting of the Council, following this

public session, Drs. Hilgartner, Bray and Bailey, were elected a Committee on Publication.

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#### DISCUSSION AND CORRESPONDENCE.

##### FALSE BIBLIOGRAPHIC INDICATIONS.

TO THE EDITOR OF SCIENCE: For some years past a few scientific Hamlets have been trying to set the time right in the matter of 'authors reprints,' 'Separat-abdrücke,' or 'tirages à-part.' The most essential of their demands is that such separate copies should be furnished with correct bibliographic indications, and should retain the original page-numbers. They recognize with gratitude that the last ten years have witnessed a vast improvement in this respect. But a new terror has arisen, and appears so frequently and in so many quarters that it seems time to raise a vigorous protest.

It is not uncommon to be favored by an author with a copy of his latest work giving the desired bibliographic indications—name of periodical, volume, page, and plate numbers, and date of publication—and apparently with the type undisturbed. But should some chance lead one to the original, one finds that one or more, perhaps all, of these indications are incorrect; or else that the type has been shifted, so that matter appears on a page other than that which it originally occupied. Direct misstatements of this specious nature are worse than no statement at all.

It is not gracious to look a gift horse in the mouth, but some instances will make the point clearer and may serve as a warning. Be it understood that this is no question of mere incompleteness of information, simple repaging, or even incorrect dating, for examples of these offences are familiar to every serious worker and are remedied by him in due course. But take such a case as this: "Studier öfver den baltiske Yngre kritans bildningshistoria. Af Anders Hennig. Afttryck ur Geol. Fören i Stockholm Förhandl. Bd. 21, Häft 1., 1899." The pagination runs from 19–82, and appears to be, as indeed it is, the original pagination. Then comes 'Häft 2' and the paper is said to be continued from the preceding 'Häft.' The pagination also continues, 83–138. There is

nothing to show that this is not the original pagination, and only the reader who chances to look up the original will find that the numbers should be 133–188 (with an addendum, not in the author's copy, on p. 218). Familiarity with the publications of the Stockholm Geological Society might arouse suspicion of the above. Let us turn to a case which seems a veritable Caesar's wife, extracted, as it is, 'from the Proceedings of the International Congress of Zoology, Cambridge, 1898,' edited by a very important person and printed by the University Press. It is 'On the Origin of Echinoderms, by Professor E. W. MacBride.' It bears all the characteristic signs of having been lifted without a tittle of alteration from the *Proceedings*, and the page numbers are 141–147. But in the *Proceedings* this paper appears on pp. 142–148.

Our next awful example hails from a Society which has done much to facilitate the work of zoologists: "Accidents will happen, etc." The paper is "Troisième note préliminaire du yacht *Princesse-Alice* \* \* \* par E. Hérourard. Extrait du *Bulletin de la Société zoologique de France*, tome XXIV. \* \* \* page 170." The pages of the extract continue regularly to page 176. Imagine the disgust of a Zoological Recorder, after entering all the new species-names on his slips, when he discovers by the merest chance that the original pages are 170–175 (not 176 at all) and that the type on every single page has been shifted. The converse of this Procrustean trick has been played upon "Notes biologiques sur quelques espèces d'Alphéidés observés à Djibouti, par H. Coutière. Extrait du *Bulletin du Muséum d'histoire naturelle*, 1897, no. 8, p. 367." The original pages, up to 370, are carefully given in [ ], and who would guess that there was ever a page 371, or that half of the text was on its wrong page? It is almost fortunate that the omission of the volume number and of the date of publication forces one to look at the *Bulletin* itself, and so discover the error.

After this one does not wonder at the following enigma recently received from a British Colony: "On some Cambro Silurian and Silurian Fossils from Lake Temiscaming, Lake Nipissing and Mattawa, by Henry M. Ami. \* \* \*

Extra. ANN. REP. GEOL. SURV. of Canada, Vol. X, Part I, Appendix II, pp. 282–301, Ottawa; Sept. 1899." Thus runs the wrapper. The title in the text adds "outliers" to the title; but a wrapper-title is not supposed to be correct. (*Why* not?). The pages of the text are 2891–3021. These figures are not merely irreconcilable with those on the wrapper, but suggest that "Part I" does not mean "Part One" at all, since the I is probably intended as a letter of the alphabet not as a Roman numeral. But this riddle is not yet solved, since the *Report*, here said to have been published four months ago, has not yet crossed the Atlantic.

These instances have not been selected for their intrinsic importance, but just as samples, all received within a few days of one another by a single individual. Each in itself seems trivial, but even a professional in touch with the best libraries in the world will be lucky if he can correct these five references in less than an hour. If he innocently accepts them he must not be surprised if he is abused some day as a careless worker, and his purely scientific observations mistrusted. If he incorporates them in a professed bibliography, the accuracy of his work will ever after be suspected and its value thereby seriously impaired.

Now the *fons et origo malorum* is not the author, who has very little to say in the matter, but the printer with his curious conventions of space and form, and his excusable ignorance of the needs of the working naturalist. The remedy lies, if anywhere, in the hands of the editor: he, who has the power, should also accept the responsibility. If the editors of our scientific publications would but realize the perpetual inconvenience that is caused by a little want of thought, and would but give clear and definite instructions to their printers to place the required bibliographic indications at the head of each reprint, to retain original pagination, and never to shift the type without duly stating the fact—then the amount of time saved by the numerous workers who have to rely upon authors' copies would be far greater than most people have any idea of.

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London, 20 Jan., 1900.