DISCUSSION AND CORRESPONDENCE

RELATIVITY

TO THE EDITOR OF SCIENCE: Like many others, I commonly read whatever, from books to mere notes, by Dr. Edwin E. Slosson, comes to my notice. Generally I am well pleased, but an exception has just occurred. I very much dislike that pleasantly written article on Relativity in the *Scientific Monthly* for November, 1922. I dislike it because, giving the words used the only meanings recognized by layman and scientist alike, save a few specialists, several of the assertions are sheer nonsense. Certainly no system of equations, however clever, can prove to one of common sense, the existence of a real fourth dimension; that time and space are not wholly independent; that just because we and the Martians may be unable to synchronize our clocks there is no 'now"; that time is "curved"; that a phenomenon may be seen before it happens; that the mere inclusion of gravitation in a more comprehensive expression eliminates it from nature; and so forth, and so on, through a long list of absurdities—absurd, that is, if their customary meanings be given to the words used.

Such expressions catch the attention, because they seem to declare the truth of amazing paradoxes, but they are, after all, mighty poor paradoxes, for their whole secret is nothing but the assigning of strange meanings to familiar words; a sort of cryptic writing. Naturally, all such "crazy" expressions, crazy so long as unexplained, inevitably breed contempt for science and the scientist.

Let us, then, in popularizing the thoughts of specialists, first understand clearly just what those thoughts are, and then put them in the words and circumlocutions of the other fellow. The real relativist is not playing hob with our understanding of nature, however different his descriptions of certain phenomena may seem; but if the language of his average popularizer is to be taken literally, and no hint, as a rule, is given of any other meaning, more topsy-turvy indeed than the Land of Alice is this finite, limitless universe that simultaneously will be, was, and is.

W. J. HUMPHREYS

TINGITIDÆ OR TINGIDÆ

IN connection with this subject there are some other points which I think should be mentioned. The Ionic genitive Τίγγιος and the Attic genitive -εως show without a doubt that the word Τίγγις is an ι-stem. In Latin it would be an i-stem, Tingi, and the genitive Tingis.

That there is a Latin word Tinge of which the stem is Tingit does not concern us for Fabricius did not use it. He could easily have done so had he wished. While these words have the same root they have different stems. The International Rules instruct us to add -idæ to the stem of the name of the type genus. They do not expect us to worry about other words based on the same root. Fabricius was a Greek purist and he based his name on the word Τίγγις, -ιος (Ionic, -εως (Attic). In writing this word in Latin he did so correctly using Tingis in the genitive. The stem of the name of the type genus is, therefore, Tingi. The family name correctly should be Tingiidæ.

It is unfortunate that Westwood omitted one i in writing the family name but before the days of the International Commission this was sometimes done. We often write Mantidæ for example based on Mantis, genitive -ιος (Ionic), -εως (Attic). If we follow the International Rules we must insert the other i and write Tingiidæ. And most of us agree that the rules should be followed.

A. C. BAKER

BUREAU OF ENTOMOLOGY

A CHEMICAL SPELLING MATCH

IN SCIENCE for October 20, Dr. L. O. Howard comments in rather facetious vein upon a chemical spelling match described in the number for September 29. He mentions his struggles with chemical names during the twenty years he was permanent secretary of the A. A. A. S. and rather approvingly drags in a quotation from Forel, who seemed to think that no true scientist uses long words. Dr. Howard is more specific and applies this to chemistry. He arouses not the resentment but the sympathy of the chemist because of the suspicion that he is envious of a body of knowledge (call it science

for short) that has such a precisely descriptive and stable system of nomenclature as chemistry.

The chemist, if diligent, can make at least one new compound every day or so and in his spare moments give it a name. Often it is easier than deciding what to call a new baby. The name he gives will generally stick, because only on rare occasions does some other chemist come along and show that the harness got twisted when the radicals were hitched up. Then all that is needed is to rearrange the component parts of the name or to substitute "ortho" for "para" or "meta."

The name tells what the substance is. Doubt arises when a short and easy name is applied. For the chemist a good name is rather to be chosen than great wealth of description, because it is self-contained. The naturalist must have detailed descriptions, preferably with plates, and is happiest when he can make comparison with "type specimens."

In his spare moments the botanist or zoologist digs around in old books and journals with the hope of resurrecting an old name for some familiar plant or animal. This is called stabilizing the nomenclature. It is done because such and such a congress decided that the race for supremacy and final adoption shall be won, not by a name that has come swiftly down the years and is known by all, but by one that stayed at scratch, hidden in some dusty volume.

Shuffling the cards for a new deal is another delightful diversion. For such names as X..... a..... (Smith) Jones *comb. nov.* special honors are awarded, particularly to Jones. The pity of it is that somebody else may come along and soon the specimen becomes Y..... b..... (Brown) White *comb. noviss.* In this way the nomenclature becomes fixed.

What is queer about a chemical spelling match? To name a compound for which the formula is given, or to do the reverse, is good training for the memory. Can one imagine a botanical or an entomological spelling match? Could "aster" or "grasshopper" be drawn in recognizable detail by the contestants? The optimistic chemist will concede that the respective drawings could with some confidence be labelled "flower" or "bug," but could an expert name the species? Yet the pitifully unscientific chemist who uses long words to cloak his ignorance can at once tell the correct names of two such closely related species as H_2SO_3 and H_2SO_4.

C. E. WATERS

WASHINGTON, D. C.
OCTOBER 27, 1922

MUSCINA PASCUORUM MEIGEN IN NEW ENGLAND

THIS European fly has made its appearance in considerable numbers this year in Massachusetts and Connecticut. The first specimen was collected in Connecticut, August 6, and it is still (November 14) quite common in the vicinity of Boston. The muscid is about three times the size of the house fly, bluish black, with a whitish, pruinose covering. A detailed account is in preparation and any information as to its further distribution will be greatly appreciated.

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SCIENTIFIC BOOKS

The Minds and Manners of Wild Animals. By WILLIAM T. HORNADAY, Sc.D., A.M. New York: Charles Scribner's Sons, 1922. Pp. x + 328.

If every man devoted to his affairs, and to the affairs of his city and state, the same measure of intelligence and honest industry that every warm-blooded wild animal devotes to its affairs, the people of this world would abound in good health, prosperity, peace and happiness.

To assume that every wild beast and bird is a sacred creature, peacefully dwelling in an earthly paradise, is a mistake. They have their wisdom and their folly, their joys and their sorrows, their trials and tribulations.

As the alleged lord of creation, it is man's duty to know the wild animals truly as they are, in order to enjoy them to the utmost, to utilize them sensibly and fairly, and to give them a square deal.

With these reflections, the dean of scientific directors of American zoological parks presents his volume on the minds and manners of wild animals. And with the following picture —reproduced here only in part—the curtain falls:

On one side of the heights above the River of