

To meet this demand, a thermostat was devised, of which a description will shortly appear in the *Journal of Physical Chemistry*. The regulator of this instrument functionates so perfectly that the temperature can be kept continuously at the same thousandth of a degree for hours at a time. It is so constructed moreover as to be capable of adjustment, within one or two hundredths of a degree, to any desired temperature over a range of about fifty degrees.

The most important factors which make such fineness of regulation possible are the following:

1. An extremely efficient circulation in the bath, which eliminates all local differences of temperature large enough to be readable.

2. Such a construction of the regulator that the expansive medium feels each minutest change of temperature and reacts promptly to it.

3. Provision for supplying the bath at all times with just the amount of heat needed, and no more. The regulation does not consist in alternately admitting and shutting off the inflow of heat, but in a 'throttling' of the same.

The extreme accuracy of function mentioned above is naturally obtained only when the thermostat is shielded from sudden changes of radiation. But excellent results are possible without such protection. Without the use of any insulation whatever, the bath can be held at a temperature of thirty or forty degrees within a hundredth of a degree.

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#### SCIENTIFIC NOMENCLATURE.

TO THE EDITOR OF SCIENCE: In SCIENCE for March 21, I find an article on 'Scientific Nomenclature,' by Mr. Frank W. Very, which concludes with the following words:

Scientific descriptions remain unintelligible to the lazy man who hates to use the dictionary. They are free property to all who are willing to take this trouble.

On other pages of SCIENCE for March 21 (pp. 458 and 459), I find the words 'ecology' and 'ecological.' As I had never seen them

before, I said to myself: 'Here is my chance to vindicate Mr. Very's judicious hint about the lazy man and the dictionary.' So I turned to the Century dictionary, but did not find ecology or ecological. I next had recourse to the new English dictionary of Murray, without success, and then to the new edition of Webster, published the present year. None of these contain the words above mentioned. Recourse to Liddell & Scott's Greek lexicon was equally unavailing. I am moved, therefore, to ask you for an explanation of this new term.

HORACE WHITE.

NEW YORK,  
March 22, 1902.

[Ecology has doubtless been coined from the same word as economics, being the branch of zoology or botany that is concerned with the dwelling place or distribution of animals or plants. It will probably come as a shock to biologists to learn that this word is not to be found in recent dictionaries, as it is used in elementary books and courses. The word appears to be post-Darwinian; perhaps some reader can tell us when and where it was first used.—EDITOR.]

#### BOTANICAL NOTES.

##### A POPULAR BOOK ON TREES.

WHATEVER tends to popularize a knowledge of our trees is to be commended. Any book which induces a considerable number of people to give more attention to the structure and habits of trees deserves our hearty approval. It is true that too often these popular books are so full of blunders that the scientific man is constantly irritated as he runs over the pages, and as a consequence he is too often unable to see the great body of valuable matter hidden beneath the superficial errors. We have had within the last year or two a number of useful books dealing with plants of various kinds from mushrooms and ferns to wild flowering herbs, shrubs and trees. Now, another book is brought out by Knight and Millet, of Boston, under the title of 'Studies of Trees in Winter,' by Annie Oakes Huntington, with an introduction by Professor Sargent. The fact that so eminent a botanist