this regard and greater uniformity should obtain both as to terminology and pronunciation.

If it is correct to spell the word phosphorus with "ph," why should not the same principle in orthography be followed when writing the word sulphur? Good English would require that the names of the members of the halogen group be spelled with the final "e," as "fluorine," "chlorine," "bromine," and "iodine," and that they be pronounced as they are spelled and not as though the termination were "in." Likewise good English demands that the names of the chemical compounds known as the halides be spelled with the final "e,"[1] and that they be pronounced as they are spelled. The names of analogous compounds should terminate in "ide," as for example: Carbide, oxide, sulphide, phosphide, nitride, selenide. The names of these compounds should not be pronounced as though they terminated in "id." Acids, bases, and salts should be written and pronounced with a proper regard for good English.[2] In naming salts, the negative terminations should be "ate" and "ite" and the names should be pronounced as they are spelled and not as though they terminated in "at" and "it."

We must conclude with Dr. Crane that "good English in chemical literature, particularly in naming compounds, needs cultivation."[3] Its choice is based on a proper regard for derivation and good usage, and this latter desideratum requires the use of pure English by English-speaking people, both in writing and pronunciation. Elimination of un-English terminology in chemical literature may be brought about by following Dean Wilbur's injunction: "Cultivate your own heritage. Cast away your mannerisms and discard your provincialisms, but cherish as a trust your own style and express it in our common language for the common good." Let those who teach chemistry in our schools and colleges observe good usage and adhere strictly to real English rather than to individual preferences.

NOTE ON THE NEW ALCOHOL TABLE OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS.

BY A. B. LYONS.

No better certificate of authority could be found than that implied in the statement that the figures of the new alcoholimetric table, given in the recently revised edition of the official publication of the Association of Official Agricultural Chemists, were calculated by the U. S. Bureau of Standards from its experimental results. Yet it is quite possible that erroneous conclusions may be reached under the use of these authentic figures.

In comparing the table with others in general use, we note in the first place that the standard temperature adopted is 20° C. instead of either 15° or 15.56°—the latter employed in all English-speaking countries by manufacturing chemists as well as by Collectors of Customs. In the second place the standard of comparison is water, not at the same temperature, but at maximum density, the

[1] Consult "Inorganic Nomenclature" in the introduction to a "German-English Dictionary for Chemists," by Austin M. Patterson, published by John Wiley & Sons, Inc., New York, 1917.

[2] Examples of good chemical nomenclature are to be found in "A Dictionary of Chemical Terms," by James F. Couch, published by D. Van Nostrand Co., New York, 1920.

[3] E. J. Crane, "Chemical Nomenclature," *Jour. Ind. and Eng. Chem.*, 11, 72, 1919.

figures representing accordingly densities rather than specific gravities. So far there need be no misunderstanding, although there are pharmacists who assume that water at standard temperature must necessarily have a specific gravity of unity.

A third point is that the figures in this table indicate true, not apparent, specific gravities, *i. e.*, that they assume that all weighings are understood to be *in vacuo*. The specific gravity of anhydrous alcohol is stated to be 0.78934. The pycnometer weighings, uncorrected for air pressure, would indicate a lower figure by something over 0.0002, making an appreciable difference in the alcohol percent deduced from the specific gravity. However, we have only to reduce all weighings to vacuum basis to reach correct results.

The fourth point is the one of real consequence. The table throughout deals with volume percentages calculated for the standard temperature 20° C. Volume percentages now in use are calculated for the standard temperature 15.56° C., or else 15° C., the difference between these two quite negligible. It seems to the writer obvious that any change in the ratio of weights to volume where commercial values are involved can only introduce unnecessary confusion. That others hold the same view is shown in the second alcohol table of the Association Official Agricultural Chemists, for determination of alcohol percentage by use of the refractometer. In this table figures are given for temperatures ranging from 17.5° C. to 25° C., but throughout the ratio of weight to volume percentage is identical, that ratio being the customary one, corresponding with a standard temperature of 15.56° C. It is evident that these two tables, each purporting to give volume percentages exact to 0.01, will show almost throughout notable apparent discrepancies.

The following table illustrates the relative values corresponding with the two standards in question:

Standard 15.56°.	Standard 20°.	Standard 15.56°.	Standard 20°.
4.00	3.98	47.25	47.19
8.05	8.02	52.15	52.09
12.14	12.09	57.21	57.16
16.27	16.21	62.44	62.39
20.44	20.38	67.87	67.83
24.67	24.61	73.53	73.49
28.97	28.91	79.44	79.41
33.36	33.30	85.69	85.67
37.87	37.80	92.42	92.41
42.49	42.43	100.00	100.00

The question may be put, why is it necessary to consider volume percentages at all in determinations of alcohol? The answer is that in America as in England our units of quantity for liquids are almost universally volume units. Further, a weight percentage implies a knowledge of the specific gravity of the liquid in question. Twenty-five percent by weight of alcohol in a gallon of wine is quite a different matter from twenty-five percent in a gallon mixture consisting largely of glycerin or syrup. Moreover, the percent by weight is not the weight percent of a distillate equal in volume to that of the original fluid.