seems to be that teaching only of the higher grade should be rewarded by the foundation. In judging the grade of teaching, however, the character of the institution where the teacher happens to be located, and not the work of the individual teacher himself, is used as the basis of selection. The present note is to suggest for discussion the desirability of changing the viewpoint, and using the work of the teacher, rather than the institution, as the unit of selection.

Success of service in the teaching profession is properly recognized for two main reasons: First, as a reward for past service and, second, as a stimulus for attracting and developing higher grade men in the profession. The reward would be more just if apportioned according to the individual service rendered, and the stimulus would be greater upon such a basis. The indifferent men in accepted institutions may be less worthy of reward and more in need of stimulus than many in unselected institutions.

Undoubtedly one of the chief reasons for making the institution the unit of selection is the apparent relative ease of classifying institutions and administrating the system upon this basis. The difficulties of classifying and administrating upon the individual basis, however, are not insurmountable. The best judge of the success of service in teaching is the opinion of teachers themselves. In "American Men of Science," 1,000 men from the entire body of scientists are listed as of preeminent rank, the number apportioned to each department being in proportion to the total number of scientists that it contains. The essential value of this starred list is the method of its selection. Those starred are thus ranked by the combined vote of the leading scientists in the particular department which they represent. Such a method of selecting individuals could be extended to include all the departments of teaching. The number that the foundation is able to directly benefit can be determined and the list of beneficiaries can then be prepared accordingly, but be selected by the teachers themselves.

Under the present system the value of the pension may seldom if ever be directly discounted from a teacher's salary, but, to the writer's knowledge, the fact of an institution being accepted by the foundation has been offered either as an excuse for a low scale of reward or as an inducement to change institutions without rise in salary. Giving the pension through preferred institutions has little or no influence as encouragement to do better work for those already in these select institutions and, for individuals outside the fold, is of influence only as it causes them to attempt to get upon the preferred institutions even at a sacrifice.

Objection may be raised to the selection of individuals that such a method gives undue prominence to research and publications. In the grade of institutions for which the Carnegie Foundation is intended, research and publication is considered as one of the necessary activities of a good teacher. Publication broadens the class room and increases the number of scholars, making the influence of the teacher international and not merely local. The good teacher further is known by his scholars and by his colleagues. It would be impossible, therefore, for the worthy teacher to escape recognition by a jury of his peers.

It is not desirable to discuss here further the possibilities of the scheme suggested nor to point out the possible influence that a recognized list of teachers might exert upon a more direct adjustment of positions to merit than is at present in vogue in many American colleges and universities. What has been written is sufficient as a suggestion.

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JONES'S "A NEW ERA IN CHEMISTRY"

TO THE EDITOR OF SCIENCE: The reference to my review of Professor Harry C. Jones's "A New Era in Chemistry," which Professor Franklin makes in his own criticism of the book in SCIENCE of July 31, may serve me as an excuse for a few words regarding this criticism.

Of the exceptions taken by Professor Frank-

lin, the validity of some may be questioned, others are obvious errors which escaped the proofreader and will doubtless be corrected in the future editions the book is sure to demand, while the remainder depend upon the standpoint of the reviewer. It is the latter point to which I wish especially to refer.

If "A New Era in Chemistry" was written as a scientific text-book or as a contribution to scientific knowledge, then any departure from the utmost scientific accuracy of statement would be justly open to criticism, but such is evidently not the purpose of the book. It is rather a singularly successful attempt to give in sparingly technical language a résumé of the salient chemical developments of the last quarter of a century. As such it is of great value, not only to workers in other branches of science, but also to some of us whose work is in other departments of chemistry.

Of course it is desirable that every statement in such a book should be scientifically accurate, and this is a result somewhat difficult of accomplishment, unless the writer takes all the "juice" out of his style by confining himself to a strictly scientific terminology. To take an example: Dr. Franklin is inclined to cavil at the following language: "Radium is naturally radio-active as it is called;" "A radio-active substance is one that gives off radiations" (and then follows in the book a description of the different kinds of radiations). Granted that this language might be objected to in a text-book, it makes the author's meaning clear to the reader, and is obviously permissible in a book of this character.

In other words, the author seeks to convey certain ideas of modern chemistry to readers, many of whom have but limited chemical knowledge, and he does it successfully, even if the language is not that of scientific precision.

Regarding the criticism that Ota "accomplished nothing more remarkable than the measurement of the freezing points of solutions," it is to be recalled that these measurements opened up the solvate theory.

Nor do we think it remarkable that an author, in suggesting the consultation of some fuller work on radioactivity, should refer to his own book on the subject, where full references to the literature of radioactivity may be found.

It is unfortunate that in the popularizing of chemistry as well as other sciences, so few who know, write, and so few who write, know; and one reason, I apprehend, why so few who have competent knowledge, translate that knowledge into language for the people, is because they know it is almost impossible so to do, without exposing themselves to just such criticisms as that of Professor Franklin.

"A New Era in Chemistry" gives evidence of being an enthusiastically written labor of love, and is remarkably successful in giving a living bird's-eye view of the development of the chemistry of to-day. As such, I was glad to commend it—perhaps extravagantly—in my review in the *American Chemical Journal*. Had it been more slowly and painstakingly written, it might have presented fewer opportunities for scientific criticism, but I am sure it would have been far less delightful reading.

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INCOMES OF COLLEGE GRADUATES TEN AND FIFTEEN YEARS AFTER GRADUATION

Science for February 4, 1910, printed a statement of the incomes of sixty-seven of the hundred men in the Dartmouth class of '99 the tenth year out of college. At the quindecennial reunion last June the net incomes of fifty-six of the ninty-five now living were recorded. Practically all of the fifty-six were included in the group five years ago. Those from whom the facts were not secured undoubtedly would lower the average for the class somewhat, but the two groups are directly comparable. The figures five years ago were used editorially in at least one metropolitan paper to prove the wasted expense of a college education when the earning capacity ten years after graduation was so small. The present figures show that there is a very rapid rise in