The element tungsten is the subject of a still more exaggerated disagreement. Scheele was unquestionably the first to mention this element, stating that he had found, in the mineral then known as tungsten but now called scheelite, a new acid to which he gave the name tungstic acid. Two years later, in 1783, it was noted by three Spanish chemists, the d'Elhujar brothers, that the new acid is also present in the mineral wolframite. The German name wolfram was derived from the name of this mineral. At the present time the element is known as wolfram by the Russian and German chemists while the English, French, Spanish and American chemists employ the name tungsten. It is interesting to note that the English and American chemists, although clinging to the historically more correct name, unanimously use the symbol W for this element. On the other hand, the French not only employ the name tungsten but represent it by the symbol Tu.

Still another interesting example. Rutherford and Priestley in 1772 independently demonstrated that after a time an enclosed volume of air no longer supports combustion or respiration. Lavoisier, however, was the first to recognize that this residual air, after removal of the carbon dioxide, is a simple body. On account of its inability to support life, he immediately named the gas azote, deriving the name from a Greek expression meaning literally antagonistic to life. The name nitrogen which the element now commonly bears was first suggested by Chaptal. At the present time the chemists of France and Russia still cling to the original name azote with the symbol Az, while to the chemists of most other nations the element is nitrogen. Nevertheless we still have in English a few relics of the original name, as for example, the names hydrazoic acid, hydrazine, azine and azole.

The adoption or use of a name other than the one originally given to an element by its rightful discoverer is by no means an indication that the discovery is discredited. Although the German chemists unanimously employ the name wolfram, they nevertheless do not hesitate to attribute the discovery to Scheele. Again, these same chemists invariably concede Hatchett to be the discoverer of columbium, although they have substituted and use the name niobium erroneously given to the element by Rose some forty years later. In all probability the greatest argument which the chemists of certain nations can offer to-day for endorsing the name niobium is the common use which that name has had in their respective countries since the days of Heinrich Rose.

It is unfortunate indeed that there should be lack of unity amongst scientists as to the names and symbols for such fundamental bodies as the chemical elements, but it is still more unfortunate that the chemists of any one land should be divided in their selection of a name for an element as we Americans are with respect to glucinum. A solution of the entire question of names and symbols could be brought about by the appointment of an international committee definitely instructed to waive all petty jealousy and, in a spirit of all fairness, diligently to search the literature, consider all claims of priority and finally report on the original and therefore most proper name for each element. That the chemists of various nations would agree to the appointment of a committee so instructed is entirely possible but very improbable. Furthermore, it is extremely doubtful if a report submitted by such a committee would be adopted by more than one third of the chemists of chemical societies to-day. It would, however, be a comparatively simple matter for American chemists to intrust the settlement of this question to a carefully chosen committee in order that we Americans might use uniform names and symbols although unable to agree entirely with the chemists of other nations.

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The Professor and the Institution

In America, we have in name freedom of speech; in fact there are considerable areas of

matters vital to human welfare discussion of which is socially and publicly taboo. We have in name freedom of the press; in fact journalistic intelligence is narrowed in its expression by public indifference and muzzled by the private interests of private owners. I suppose that the artist's right to express his own soul is theoretically conceded; but I am confident that any artist who should attempt Gallic liberties in his self-portrayals would but placard his name to distrust and put his genius in perpetual quarantine. The case of the teacher who happens to be also a thinker is better than these chiefly from the circumstance that his right to express his thought is a more present issue and is likelier to come to an early solution.

The issue of "academic freedom" is the problem of adapting institutionalism to personalities. Education has become an involved affair, with elaborate "plants," ornate administrations, and a distinguished sense of what the eloquent speech of Manhattan would call its "front." Few, I imagine, doubt the utility of these perquisites; while none conceding this can question the importance of the institution or the high sufficiency of its administrative avatars. And yet if the institution of education becomes too gross of organization, it loses the end of education. Perfunction is the oil that smooths administration, but it clogs and dams personality; and education apart from personalities, in place of a Socratic mid-wifery to souls, becomes the deft art of spiritual undertakers—the school is replaced by the morgue. Our danger is obviously lest the instrument kill the growth it was designed to foster.

Putting the matter concretely, education, as it is nowadays conceived, has two requirements different to the point of antagonism. On the one hand there is the need for elaborate material and financial equipment, and with it all the accompanying interplay of institution and public. This is a problem of ingenious government and politic administration, demanding for its success an essential solidarity. On the other hand, if the function of the institution is to be fulfilled, the right of the teacher to think and to speak his thought must be subject only to his own wisdom—at least within the province of his subject; and this spells essential individuality. Thus we are presented to a dilemma, with horns equally brazen.

Doubtless the ideal solution would be the creation of a breed of teachers gifted with a military scorn of danger and a high indifference to economic death. There is, as the matter stands, a lingering suggestion of effeminacy about the professorial craft. Men generally suspect in the professor a deficient virility, and they look upon scholarship as a kind of spiritual cosmetic designed to conceal an enfeebled soul. It might habilitate the teacher's profession in the general eye, and perhaps enhance the teacher's own esteem of it, if the business were made perilous and publicly spiced with rash braveries of expression. But the difficulty of this heroic road is that only the tame would be left to teach. Eventually—and in no long eventuality—it would destroy the schools.

What is needed is clearly a compromise (and let not the term be regarded as a sign of fear; all practicalities are compromises, and language, the most practical of all is the most compromising of all, for every word is a compromise of its meanings). The institution, in its essential solidarity, is necessary to the professor; the professor, in his essential individuality, is necessary to the institution. This mutual necessity must surely yet mother a thrifty progeny.

Every one interested in the situation has, I suppose, his scheme of melioration. I have mine. Let me briefly sketch it. I am speaking, be it understood, of colleges and universities.

Suppose that in each institution there were a clear legal distinction between the professoriate and the administrative body. In the hands of the latter should rest all problems of organization, publicity, expansion or contraction of curricula, material control, and all appointments except to the professoriate; it

should have in its hands the essential conduct of the institution, as at present. Only one power which it now has it should not have: the direct power of appointing or of removing a "professor." For the professoriate should be composed just of the men bearing the title "professor," whose rights should be: (1) Appointment only on election by the professoriate, according to its own rules of election. (2) Removal only after trial by the professoriate, according to its own rules. (3) Assurance of a certain minimum salary—determined by the custom of the institution—so long as the title of "professor" remain unrecalled; and (4) assurance of the right to teach the subject defined by his complete title, during the like period.

Under such a division any administration could impeach any professor, demanding his trial by the professoriate, but it could not remove him until this trial had resulted in the revocation of his title. On the other hand, no professor would be allowed administrative control of any department or school except on appointment to such work by the administration. Further, there should be allowed various titles, such as "assistant" or "associate professor," to be given by the administration to men to whom it wished to encharge work newly introduced as well as by the younger men who might be regarded as candidates for the rank and position of "professor." These men, in each institution, would be serving a probation, preliminary to their final election to the body of the professoriate. There should be nothing to prevent the administration from paying such men even higher salaries than the professorial minimum, and indeed nothing to prevent any advance in salary to a "professor" above this minimum. Of course any "professor" should be eligible to any administrative office without sacrificing his professorial rank and rights.

This scheme, viewed *a priori,* ought to be easy to introduce and maintain. A charter body of professors should be selected from the staff already in service by the administration of each university and college, and contractually endowed with the rights named. Presumably, the body so selected would represent the present sentiment and ideals of the institution, while the natural conservatism of a self-perpetuating body would ensure a reasonable constancy in its character. Young men would be tried out before being elected to the body; while the administration would retain ample power to guide the general development of the institution.

Our present plan, in which the head of the institution is, internally to it, the benevolent autocrat, and, externally to it, the responsible politician, is an ugly makeshift. The plan here proposed ought to lighten the cares of such a head by lessening his responsibilities, while at the same time it would relieve the professorial profession of the stigma of servility, and it would give the supporting public a less flickering consciousness of the fact that in calling a man to the thankless task of thinking they are incurring obligations as well as receiving benefits.

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SCIENTIFIC BOOKS

The Antiquity of Man in Europe, being the Munro Lectures, 1913. By James Geikie, LL.D., F.R.S. Pp. xx + 328, 9 text illust., xxi pl. and 4 maps.

This is a series of lectures upon a subject with which Professor Geikie's name has been associated for more than a third of a century. His "Prehistoric Europe" appeared in 1881 and the matter received more than incidental consideration in the third edition of his "Great Ice Age." The work is an argument from the geologist's standpoint, the most important of all, since geology is the final court of appeal.

The subject is outlined in the first lecture. The general features of Pleistocene climate and its extreme variations are shown in a discussion of the several faunas and floras, which affords opportunity for comparison with present conditions in Asia and North America. He is led to believe that, while there is ample proof that man existed early in the Pleistocene, there is thus far no positive evidence of his