given on the basis of blood meal containing 13.05 per cent. total nitrogen, such as was employed by the Colorado Station. To the end of making available more complete data for comparative studies, the writer would take this occasion to urge those who are engaged in research work to be less reluctant about giving the details of their investigations, for it is obvious that comparative work is impossible and worthless except it be carried out with a strict observance of points of technique.

Professor Lipman refers to the importance of having a large number of soils in any comparative study:

> It must also be added here that the comparison of only a few soils can not be invested with much importance, even if the soils are described by similar names.

In this matter, his point is well taken, but when the data do not exist, we must be satisfied with the information at our disposal. Moreover, it seems to the writer that a comparison of the ammonifying efficiency of twenty-seven niter soils with that of ten soils selected at random in Colorado and elsewhere should have more weight than the critic would concede.

Again, Professor Lipman writes:

> It is, of course, obvious that sandy loams may embrace soils of very widely differing natures and that no just comparison can be made between a sandy loam, so called in one district, with a sandy loam so called in another district.

If this comment is intended as a criticism of Bulletin 184, it is absolutely without foundation, for no place in this publication can there be found any statement which suggests, implies or asserts a comparison of soils on a physical basis.

The one very important factor which the writer is said to have given no consideration, and upon which Professor Lipman has dwelt at some length, is what appears to be a radical departure from the normal in the method of preparing the soil cultures for studying ammonification. Professor Lipman states that "Professor Sackett sterilizes his soils with mercuric chloride and then rinses them with sterile distilled water prior to inoculation with a *soil infusion.*" Then follows a critical discussion of this method.

The writer begs to state in defense of this assertion that *no such procedure has ever been practised* in his laboratory and probably never will. This seemingly direct contradiction resolves itself into a rather amusing circumstance when it is learned that Professor Lipman has gained this erroneous impression, upon which he has grounded his chief criticism, from his failure to observe certain punctuation marks in the crucial sentence. On page 4 of Bulletin 184, this sentence occurs:

> As soon as the soils were air dry, which seldom requires more than twenty-four hours in our atmosphere, each was ground in a glass mortar, sterilized with mercuric chloride and subsequently rinsed with boiled, distilled water, and passed through a thirty-mesh wire sieve.

From this, it is perfectly clear to the writer that it is the glass mortar which was sterilized with mercuric chloride and subsequently rinsed with boiled, distilled water. However, Professor Lipman makes it the soil which received this treatment, and thereby hangs the tale.

As confirming the Colorado investigations, the writer is pleased to learn that on several occasions Professor Lipman has noted a high ammonifying efficiency in soils of California, which contain abnormal amounts of nitrate, as well as in certain soils obtained from the vicinity of Grand Junction, Colorado.

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THE TERMS SEGMENT AND SEGMENTATION IN GEOLOGY

THE terms segment and segmentation which are so conveniently and widely used in the biologic sciences have not found their way into geologic literature to a very notable extent, although they seem to be well suited to geologic science. In searching for a general term which could be applied to a minor part of the earth and having the dimensions of a solid, the word segment appeared to me as the most convenient, and on reflection I recalled

that it has already been made use of in Chamberlin and Salisbury's text-book of geology, in discussing continental and oceanic segments. If it is applicable to major elements why not to minor ones as well? The parts cut off by a fault or included between faults might be called fault segments and the terms upthrow segment, downthrow segment, overthrust segment and underthrust segment would be convenient and would obviate such expressions as "the area adjacent to the fault on the upthrow side" and others which are equally unsatisfactory. Other usages of the term would follow naturally. The Colorado plateau may be cited, as an example of segmentation by faulting.

After writing the above I read the "Report on the Investigation of the Geologic Structure of the Alps," by Willis[1] and found the following usages of the term segment:

> Each of these minor scarps is the western face of a segment of the range. . . .
>
> It is an example of major and minor thrusting with two somewhat divergent directions of displacement and with diversities of folding in the several segments.

These are the only quotations which I can cite, but there are no doubt others which may occur to the reader. The fact that geologic text-books and glossaries do not include or define the term segment is no reason against its being used, since they follow usage rather than establish it.

GEO. I. ADAMS

IS THE "ACADEMIC COSTUME" WORTH WHILE?

TO THE EDITOR OF SCIENCE: Early in October last I accompanied my wife to the celebration of the seventy-fifth anniversary of Mt. Holyoke College, where she graduated in 1873. I was deeply and favorably impressed with the comprehensiveness and significance of the program and with the executive ability manifested by those—chiefly women—charged with its fulfilment.

Of the several functions, however, I witnessed but one, and that only in part. The "Intercollegiate Commemoration Exercises" began with a procession of some score presidents and delegated professors arrayed in full "academic costume." The sentiments aroused by it banished all desire to remain. (The following discourses, however, were admirably reported and were read afterward with interest and enlightenment.)

At Cornell University, some years ago, as a member of a committee on the subject, I cooperated in preventing the adoption of an arbitrary requirement; when, nevertheless, parti-colored ceremonial garments were worn by most of my colleagues, I excused myself from commencement exercises; hence I was quite unprepared for the gorgeous spectacle at Mt. Holyoke.

I tried to comprehend how mature, modest, civilized and learned persons could don garments indicating, on the one hand, an assumption of superiority and, on the other, a childish delight in bright colors and startling combinations (one was so "loud" that it seemed doubtful if the wearer could make himself heard). Nor could I refrain from speculating as to how far the addition of feathers and paint might complete the barbaric *ensemble*, arouse more keenly the curiosity of the uninitiated, and more effectually dazzle the eyes of groundlings.

Since then there have been sent me colored plates of the various academic costumes according to British and American usages, some courteous letters and offers of fuller information, and a pamphlet entitled "The International Bureau of Academic Costume, Albany, N. Y., July 27, 1902." To those interested I commend the paragraphs in that publication at the middle of page 5 and near the top of page 11. Candid and careful consideration of the claims there made confirms the opinion formed when the subject was first broached, viz., excepting, perhaps, the plain gown for the first degree, obviating social distinctions, the so-called "academic costume" is ostentatious, needless, childish or barbaric, and inappropriately expensive; its rapid and general

[1] Smithsonian Miscellaneous Collections, Vol. 56, No. 31, 1912.