

they regard his arguments and mathematical demonstrations as incapable of refutation. Among these authorities may be named the following:” In the list of names there given my own appears.

The fact is that I regard the points he attacks as being beyond debate, and simply decline to discuss the matter with him, telling him as plainly as the forms of courtesy permit, that I consider his work of no value. I know personally that substantially the same is true of at least two others whose names are on the list, and have no doubt it is true of all. Comment is unnecessary.

C. A. YOUNG.

FEBRUARY 20, 1897.

[The responsible editor of this JOURNAL did not know of the insertion of the advertisement claiming the endorsement by Professor Young and others of Mr. Emmens' absurd book. He has written to the Macmillan Co. requesting that no further advertisement of the book be inserted. Ed.]

FORMER EXTENSION OF GREENLAND GLACIERS.

I SHOULD be exceedingly sorry to misstate the views of a fellow worker, as Professor Chamberlin* infers that I have done, from a short abstract† of a recent paper read before the Geological Society of America, but not yet published. His editorial places quite a different interpretation upon his views from that which I had gained from a reading of his articles. After a journey of a thousand miles along the Greenland coast, he says:‡ “The inference was drawn that the ice formerly so extended itself as to reach the present coast over about half of its extent, while in the remaining portion the ice fell short.” Professor Salisbury§ states that the phenomena indicate that the ice has not recently overridden the ‘islands of the coast of Greenland,’ and moreover that it is a question if this is a possibility.

In his editorial Professor Chamberlin states: “In its bearings upon these general problems, an advance of a few miles, more or less, an inef-

fectual overtopping of a few heights, more or less, are relatively inconsequential. Our language is to be interpreted in the light of the major question whose solution we sought.” These ‘major questions’ are: (1) whether the Greenland ice was the source of the American ice sheet, which I did not suppose that anyone seriously believed at present; and (2) whether the Greenland ice ever reached ‘out into the heart of Baffin’s Bay.’

It would not be profitable to restate any of the arguments in my paper, which is soon to be published; but if this proves what it attempts to prove, namely, that angular peaks have been glaciated, and yet have remained angular, largely because they projected *into* the ice, and that, in one place, in spite of rugged, unsubdued peaks, there is perfect evidence that the ice reached beyond the present land margin, it must overthrow any conclusion concerning former ice extension that is based upon angular topography alone.

A careful detailed study of a single region proves that a land of rugged peaks has been glaciated. Is it then a safe conclusion to draw that the ‘ice fell short’ of half the coast, upon the basis of evidence from angular topography, mainly seen from a ship from five to twenty miles distant? I would go further and ask if, upon such evidence, the conclusion is warranted that the ice did not extend ‘out into the heart of Baffin’s Bay?’ Personally, I draw no conclusion concerning how much of the Greenland coast has been glaciated, nor how far the ice extended; but I do know that ice can override peaks for a long enough time to scour valleys and hillslopes well, and yet leave the peaks rugged and angular in outline; and I also know that the ice in the Upper Nugsuak peninsula region once reached 30 or 35 miles beyond its present margin, which is as far as any evidence can be found in this region. For the larger question, how far it extended, and how much coast it covered, I believe it is well to wait until further evidence is at hand.

RALPH S. TARR.

COMPLIMENT OR PLAGIARISM.

THE second carefully prepared plea of Professors Beman and Smith is simply a conscious

* Editorial, Journ. Geol., V., 1897, 81.

† Journ. Geol., V., 1897, 95.

‡ Bull. Geol. Soc. Am., 1895, VI., 219.

§ Jour. Geol., IV., 1896, 774.

dodging. The case against them is very plain and may be put thus: I offer to pay a year's subscription to SCIENCE for any man, woman or child who will inform the editor of any book in any language where can be found a Section, Partition of a Perigon, or, as Beman and Smith reprint it, Partition of *the* Perigon, and the problems: Problem I., to bisect a perigon; problem II., to trisect a perigon; problem III., to cut (divide) a perigon into five equal parts (angles); problem IV., to cut (divide) a perigon into fifteen equal parts (angles), excepting Halsted's Elements (1885) and Beman and Smith (1895). The question about the word perigon is an issue introduced by Beman and Smith to distract attention from their 'take.'

But their laborious researches on this matter turn out highly complimentary to me. They find that not a single geometry can be found in any language that ever used this word until after mine. They find, by actual laborious correspondence that W. B. Smith, Newcomb, and even the Italian Faifofer, saw the word for the first time in Halsted's books.

They say, SCIENCE, p. 275: "*We have reason to believe that W. B. Smith, Newcomb and Faifofer all did see the word for the first time in Halsted's books.*" This is all that I have ever claimed about this word, and surely it does me great honor. As to whether I first coined this word, I gave the facts to Cajori (see his 'The Teaching and History of Mathematics in the United States,' 1890, p. 237); but the question for Beman and Smith is whether, like the other geometers, they first saw the word in the only place where any man, before their plagiarism, ever saw the phrase Partition of a Perigon.

GEORGE BRUCE HALSTED.

THE NATIONAL UNIVERSITY: A SUGGESTION.

ON the birthday of Washington this year it has been proposed to bring before as many persons as possible the thought of a National University, with portions of Washington's addresses to Congress, and the clause of his will relating to the subject, in order, to use his own words, 'to set the people ruminating on the importance of the measure as the most likely means of bringing it to pass.'

Relatively few people know that in this document the far-sighted man whom we love to call the Father of his Country bequeathed to the Nation the equivalent of \$25,000, in trust as the nucleus for the endowment of such an institution. To-day such an endowment would appear small, but neither principle nor earnings of this sum have ever been applied to the purpose for which it was intended, and had it been kept invested at six per cent. during the century that has all but passed since the testator's death this modest gift would be worth to-day over \$12,000,000.

Some sentiment is, no doubt, behind the earnest movement that is now making toward the realization of Washington's hopes, and popular sentiment in a popularly governed country is far from powerless. But the establishment of an educational institution, especially of a university in the proper sense, and above all of a university which is expected to be in fact as well as in name a National University, should depend upon more than popular feeling that the hopes of the broad-minded Washington deserve, even at this late day, to be realized.

When these hopes were formed the country had, in fact, not one university which to-day could justify its use of the name. To-day, among the hundreds of nominal universities, there are scores which offer post-graduate facilities in one or more departments sufficient to justify them in offering advanced degrees, and a few possess an equipment for work whereby the doctor's degree may be earned in either of the principal departments recognized as necessary or desirable for post-graduate work, or university work as contrasted with that which is purely collegiate. Surely these institutions may properly lay claim to the name of university.

Yet, if we possess universities worthy of the name, can it be urged that these are sufficiently numerous, or even sufficiently strong individually, to preclude the desirability of adding to their number one which may hope to do in its every department work equal to that done in the best departments of the best existing institutions? The president* of one of the most

*Jordan, The urgent need of a National University. The Forum, 22: 600, January, 1897.