

"It is impossible to compute the area of a circle on the diameter as the linear unit without trespassing upon the area outside of the circle to the extent of including one-fifth more area than is contained within the circle's circumference, because the square on the diameter produces the side of a square which equals nine when the arc of ninety degrees equals eight. By taking the quadrant of the circle's circumference for the linear unit we fulfill the requirements of both quadrature and rectification of the circle's circumference. Furthermore, it has revealed the ratio of the chord and arc of ninety degrees, which is as seven to eight, and also the ratio of the diagonal and one side of a square, which is as ten to seven, disclosing the fourth important fact, that the ratio of the diameter and circumference is as five-fourths to four, and because of these facts and the further fact that the rule in present use fails to work both ways mathematically it should be discarded as wholly wanting and misleading in its practical applications. * * * And be it remembered that these noted problems had been long since given up by scientific bodies as unsolvable mysteries and above man's ability to comprehend."

WE have received from the Australian Museum at Sydney, N. S. W., a memoir which is the first of a series giving an account of the Atoll of Funafuti by Mr. Charles Hedley, conchologist. We learn from an introductory note by the curator, Mr. R. Etheridge, Jr., that the local committee of the Funafuti Coral Reef Boring Expedition, of the Royal Society, in charge of Professor Sollas, having suggested to the Trustees of the Australian Museum that one of their officers should be deputed to accompany the expedition, Mr. Charles Hedley was selected for the purpose. Mr. Hedley left Sydney in H. M. S. 'Penguin,' under the command of Captain Mervyn Field, R. N., on May 1st, arriving at Funafuti on May 21st. He remained on the island for two and a half months, leaving in the same vessel. On the return voyage to Fiji, the Island of Nukulailai was touched at, where scientific investigations were renewed for two days. Mr. Hedley finally reached Sydney on August 22d. During his stay on Funafuti, Mr. Hedley succeeded in amassing an interesting collection, particularly of invertebrate and ethnological objects, together with much valuable scientific information. The collections are now in process of de-

scription by the Scientific Staff of the Museum, and the results are being published in the order in which the study of the various groups is completed.

UNIVERSITY AND EDUCATIONAL NEWS.

THE late Mr. William Lampson, of LeRoy, New York, has bequeathed his fortune, with the exception of a few small bequests, to Yale University. The bequest is said to amount to about \$500,000. \$150,000 is to be used for an auditorium and the rest for the endowment of professorships.

THE Stevens Institute of Technology, celebrated the 25th anniversary of its foundation on February 18th and 19th. There was a dinner at the Hotel Waldorf, a reception by Mrs. E. A. Stevens and a meeting at which addresses were made by Bishop Potter and President Morton, who described the achievements of the institution, its present condition and its future aims. Mr. Dod read a letter from President Morton, in which the President gave 1,000 shares of stock of the Texas Pacific Railroad to the board of trustees, 'to be held until their appreciated value with such other funds as may be devoted to the purpose, may be adequate for the erection and maintenance of the proposed new building generally referred to as the alumni building.'

THE Marquis of Bute, the present Lord Rector of the University of St. Andrews, will erect for the University four laboratories, including lecture rooms and museums, for the departments of anatomy, physiology, materia medica and botany.

MISS UMPHERSTON has been appointed lecturer in physiology at St. Andrews University.

DISCUSSION AND CORRESPONDENCE.

'THE ARGENTAUROM PAPERS.'

TO THE EDITOR OF SCIENCE: I think I ought not to pass unnoticed a statement and an unauthorized use of my name, made by Mr. S. H. Emmens in an advertisement just published in SCIENCE. He says: "The author has received many communications from eminent authorities explicitly approving of his work; while others have written in such a manner as to show that

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.