year at Cornell University. Of these 136 are in the department of arts and sciences and 137 in the Sibley College of Mechanical Engineering. There are 18 candidates for the doctorate, 14 in philosophy and 4 in science.

THE will of the late Miss Brown, of Waterhaugh, Ayrshire, leaves £5,000 both to the University of Edinburgh and to the University of Glasgow.

THE Cambridge Syndidate appointed to consider the question of degrees for women have issued a second report, in which they state that after carefully considering the discussion of their first report they adhere to their recommendations. The statute recommended is as follows: "The University shall have power to grant, by diploma, titles of degrees in Arts, Law, Science, Letters and Music to women who, either before or after the confirmation of this statute, have fulfilled the conditions which shall be required of them for this purpose by the ordinances of the University, and also shall have power to grant by diploma the same titles *honoris causa* to women who have not fulfilled the usual conditions but have been recommended for such titles by the Council of the Senate; provided always that a title granted under this section shall not involve membership of the University."

DISCUSSION AND CORRESPONDENCE.

FORMER EXTENSION OF ICE IN GREENLAND.

I HAD not intended writing on this subject again, but Professor Chamberlin's criticism* of my paper in the Bulletin of the Geological Society of America calls for a reply. For the benefit of those, if there are any, who think that problems of Greenland glacial geology can be settled at long range, by a comparison of photographs, I wish to point out that Professor Chamberlin has selected for publication, not the view in my paper, which *does show* some ruggedness, but one inserted primarily to show glaciated topography. Therefore I can agree with some of Professor Chamberlin's remarks.

Had my critic sailed along this coast he would have seen the Devil's Thumb as a high peak with serrated sky line, precipitous front and numerous evidences of ruggedness. He would not have seen the well glaciated back, which my view shows, and would not have known that, while in all other places the peak is inaccessible, the ascent from the glaciated back was easy. Had he made this ascent he would have found even more distinct evidence of ruggedness and, throwing a stone as large as one's head, would have found that from five to seven seconds elapsed before it struck, indicating a nearly sheer precipice of perhaps 500 feet. Whether this would have been classed as angular and unsubdued I cannot, of course, say; but my classification of it, in the view obtained from the sea, is distinctly unsubdued. Some idea of the nature of this west face (or left side) may be gained from the photograph, though the cliff is three or four miles from the camera and the picture, as printed, far less distinct than the original view. Dozens of hills in this region have the same characteristics, including Fig. I., plate 27 (in my article), in which, however, glaciated topography is seen in the background on the right, which would not have been seen from sea-level.

I have nothing to say concerning my query about the 'driftless area,' which, judging from the warmth of the reply, seems to be resented. Nor do I feel called upon to defend my use of the term Devil's Thumb. From Professor Chamberlin's remarks one would infer, what is not the case, that I had made an error in placing names. Geologists would be undertaking a very serious task if they attempted to verify the maps they use. The Ryder map, from which the name is adopted, is based on an *official Danish Survey*, and for the region is quite remarkably accurate. Since this map is published in my paper, and a foot-note announces my belief that Ryder has made an error in naming the mountain the Devil's Thumb, no real confusion will arise in the minds of those who read my paper carefully and candidly.

Professor Chamberlin makes another mistake when he says that I insist 'upon general glaciation.' I have never done this, but have brought forward evidence which, I believe, proves the opposite conclusion to be a generalization based upon questionable field methods,

* SCIENCE, p. 748, and in a somewhat different form in *Journ. Geol.*, V., 1897, p. 303.

so that the work ought to be done over before the conclusion can be accepted.

Since Professor Chamberlin has again and again mistaken my position, or has otherwise changed the point at issue, and since little of scientific value is likely to come of this discussion, I shall write no more upon this point.

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POUDRÉ.

TO THE EDITOR OF SCIENCE: Mr. Goode's description of what he calls *Pseudo-Aurora* (SCIENCE, January 29, 1897), as seen by him at Moorhead, Minn., is abundantly confirmed by my own observations at this place. The complete manifestation of the phenomena is comparatively rare. The finest I ever saw was on January 22, 1890, an account of which was furnished by me at that time to the *American Meteorological Journal*, and published in the February number, and to which the title of this article was given by the editor, Mr. M. W. Harrington. From this article I condense the following extract: After a ten days' period of continued cold weather the thermometer reaching $-20°$ to $-32°$ at night, a south wind set in on the 22d, and the temperature rose to $+10°$. During the afternoon and evening the air seemed full of small ice crystals; and my recollection is that I examined them, and found them to be, as Goode describes them, minute, thin, perfectly clear, hexagonal ice-crystals. The reflection of street lamps and electric lights made long streams of light, *all tending to the zenith of the observer;* that produced by the electric light being so nearly like the Aurora Borealis as readily to be mistaken for it.

LUDOVIC ESTES.

UNIVERSITY OF NORTH DAKOTA, April 28, 1897.

EARLIEST PUBLISHED NOTE OF THE LATE CHAS. E. BENDIRE.

IN my obituary of Major Bendire, published in SCIENCE of February 12, 1897 (pp. 261–262), I stated that "his earliest published writings are in the form of letters to well-known naturalists, chiefly Allen, Baird and Brewer." While this statement is correct as it stands, the first letters mentioned by me were published in 1876. Dr. Coues calls my attention to an earlier note I had overlooked, one by himself in the *American Naturalist* for June, 1872 (p. 370), in which a quotation is given from a letter about a small owl, written by Bendire, from Tucson, Arizona. So far as I am aware, this is the earliest publication of any of Bendire's notes.

C. H. M.

SCIENTIFIC LITERATURE.

RECENT TEXT-BOOKS IN PHYSICS.

Elementary Text-books on Physics. ANTHONY AND BRACKETT. Revised by W. F. MAGIE. John Wiley & Son. Eighth edition. 1897.

The Elements of Physics. NICHOLS AND FRANKLIN. Volume III., Light and Sound. The Macmillan Co. 1897.

The Outlines of Physics. E. L. NICHOLS. The Macmillan Company. 1897.

Problems and Questions in Physics. MATTHEWS AND SHEARER. The Macmillan Company. 1897.

Intermediate Course of Practical Physics. SCHUSTER AND SEES. The Macmillan Company. 1896.

Experimental Physics. W. A. STONE. Ginn & Company. 1897.

First Principles of Natural Philosophy. A. E. DOLBEAR. Ginn & Company. 1897.

In view of the enormous number of new books, on all sorts of subjects, which are continually making their appearance, it is important to inquire whether book-makers, publishers and authors are not increasing at an abnormal rate. Indeed, it begins to look as if some check on their activity would shortly be necessary for the protection of those old fashioned people whose pleasure it is to read rather than to write books. At the present rate of book production it will not be long before that day, which has often been foretold, is actually at hand when every man will have time to read only his own works, and even now there must be some authors who are too busy for that.

The intellectual, and especially the scientific, activity of the present period is in some measure finding an outlet in the preparation of text-books for schools and colleges, and this is particularly true in the domain of the physical sciences.