Va., has been tendered informally to Postmaster-General William L. Wilson and that he will accept the office.

The students of the University of Athens have again been engaged in rioting. The trouble originated in a rebuke addressed by Dr. Galvani, professor of medicine, to some students who interrupted him while he was performing a critical operation. The University was closed, but the students refused to leave the building and were blockaded in it. According to the latest reports quiet has been restored, but in the riots one student was killed and a number of persons were injured.

The Yale *Alumni Weekly* has published figures showing the relative amount of time spent by undergraduate students of the academic departments of Yale and Harvard Universities. The percentages for the more important groups of studies are as follows:

	Yale.	Harvard.
Classics	24.2	8.7
European languages	14.5	22.8
Political science	11.2	9.9
English	10.9	16.8
History	10.4	14.3
Mathematics	9.6	4.4
Philosophy	8.9	6.1
Natural sciences	8.1	10.2

It thus appears that under the elective system at Harvard only one-third as much time is given to the classics and one-half as much time is given to mathematics as is given at Yale, where these studies are prescribed. The time taken from the classics seems to be given chiefly to modern languages, English and history, but there is a slight increase in the sciences. The same facts would be shown by a comparison of the courses now taken at Yale under a partial elective system, as compared with the courses taken ten years ago.

DISCUSSION AND CORRESPONDENCE.

LIEUTENANT PEARY'S EXPEDITION.

To the Editor of Science: At the Washington meeting of the Geological Society of America in December, 1896, a letter from Lieutenant R. E. Peary was read, in which the writer stated that a ship would be sent to northern Greenland in the summer of 1897 for the purpose of obtaining the large meteorite there and that this ship would offer means of transportation for other parties who might like to avail themselves of the opportunity. He further stated that the coast of Greenland furnishes exceptional facilities for the study of glacial phenomena and suggested the feasibility of several parties being formed to take part in work there during next summer. After a slight discussion of the subject the following resolutions were drawn up and adopted by the Society without opposition:

"*Resolved*, That the Geological Society of America endorse Lieutenant Peary's suggestion that the coast of Greenland presents an exceptionally fine field for the investigation of glacial phenomena as well as in a more limited degree of the other natural sciences, and recommend that the various universities, colleges and other scientific organizations of the country consider the matter of cooperation with Lieutenant Peary's expedition in the summer of 1897, by sending independent parties to be placed at various localities along the Greenland coast to carry on synchronous work for a period of five or six weeks.

"*Resolved*, That the thanks of the Geological Society of America be tendered to Lieutenant Peary for having brought the matter of this form of Arctic work to the attention of the Fellows of the Society."

In the summer of 1896 two parties of six members each, one from Cornell University under the direction of Professor Ralph S. Tarr, and from Boston under the direction of Professor Alfred E. Burton, of the Massachusetts Institute of Technology, availed themselves of the means of transportation offered by the Sixth Peary Expedition to Greenland. The former party was landed in the vicinity of the Devil's Thumb, in the southern portion of Melville Bay, latitude 74° 7′. A brief statement of this work has been published in this journal by Professor Tarr*.

The latter party, of which the present writer was a member, was landed at Umanak, latitude 70° 35′, and spent five weeks in making observations upon the numerous glaciers and the marginal area of the inland ice along the region

*Science, N. S. IV., 520–523.

of the Umanak, Great and Little Karajak and Itivdliarsuk fiords. A brief statement of a portion of the work accomplished has been published by the writer*. Papers by Professor Tarr and the writers were presented at the Washington meeting of the Geological Society of America. The results of the summer's work will be published in detail at a later date. Beside the main work in glaciology, each party paid some attention to the general geology and to the fauna and flora. In addition, one member of the Boston party, Mr. G. R. Putnam, of the United States Coast and Geodetic Survey, made a valuable series of magnetic and pendulum observations.

On the voyage home the members of the various parties discussed the results of the summer's work, and all agreed with Lieutenant Peary that exceptional opportunities are offered for the study of glacial geology on the coast of Greenland, and also that this coast is easily accessible from the United States or Canada. The inland ice covers the entire continent of Greenland, except a narrow marginal area along the coast line. Its depth, according to the reports of Nansen and Peary, is sufficient to cover the highest peaks that may rise in the interior, but is so far undeterminable. The marginal uncovered area has a width varying from that of a few miles in southern Greenland and in Melville Bay to sixty or more miles in the vicinity of Disko Island and the greater Nugsuak Peninsula.

It presents a bold face of cliffs to the waters of Davis Strait and Baffin's Bay seldom below 2,000 feet in general elevation, with summits often reaching to 6,000 feet and above. Through this plateau margin numerous fiords cut backward from the sea, many of them reaching the ice front and nearly all furnishing accessible routes to it. So numerous are the fiords just south of Melville Bay that the marginal area consists almost entirely of detached islands. Those that reach the ice front are occupied by glaciers that descend from it, presenting the general features of Alpine glaciers, except that they are fed from the inland ice instead of a névé region, and presenting in addition a water front with the discharge of bergs.

* American Geologist, XVIII., 1896, 379–384.

Here, then, is presented an interesting field for study, extending over hundreds of miles, of the phenomena of the ice front as it lies upon the plateau surface between the fiords; of the marginal area of the ice itself upon which journeys of a week or ten days inland can easily be made, and of the glaciers descending from the ice margin. These latter present a multiplicity of form and variety.

The Danish government has made a general survey of the coast southward from Melville Bay, but very much remains to be done, and the whole coast is but slightly known to the English or American geologist and glacialist.

If several parties could visit Greenland next summer and carry on synchronous work a great deal might be accomplished that would be of very great value. As Cornell University and the Institute of Technology sent parties last summer, so might other universities, colleges and scientific organizations send parties in the summer of 1897. Each party could select its own location and carry on its own work entirely independent of the others. The correlation of the data obtained by the various parties would make a valuable addition to our knowledge of living ice phenomena.

Lieutenant Peary's ship will probably approach the Greenland coast near Cape Desolation, between latitude 60° and 61°. In this immediate vicinity is the Julianshaab glacier, easy of access and an interesting field for one party. Other places that can be chosen for parties are Frederickshaab, Godhaab, Sukkertoppen, Disko Bay, with the Jacobshaven and Torsukatak glaciers, Umanak Fiord, Swartenkuk Peninsula, Uppernavik Fiord, etc. Parties landed at these various places would have from at least four to six weeks for investigation during the absence of the ship farther north, those at the more southern points having a longer time. At all of these places Eskimo boats can be obtained to furnish means of transportation in the fiords, and their crews can be utilized to carry packs of provisions, clothing or camping gear when on land. Could each party be furnished with a steam or naptha launch, travel would be much more rapid and a larger extent of coast could be visited.

The important work of each party should be

the investigation of glacial phenomena both present and past. In connection with the latter especial attention should be paid to evidences of glaciation on the highest peaks and to the outermost points of land. Also attention should be paid to evidences of past subsidence or elevation of the coast. Other branches of science, however, should not be ignored. The make-up of each party should be about as follows: a glacialist, as director in charge; a general geologist; a zoologist; a botanist; a meteorologist and an ethnologist. If possible, a physician should be obtained for each party, who could also act in one of the above capacities. So far as possible each member of a party should be a trained observer. In an expedition of this kind there should be no members that are not enthusiastic in the work, and each should be prepared to make the best of the opportunities offered in the necessarily limited time. The necessary expense, considering the circumstances, is not large, and it ought to be possible for each party to have sufficient funds to allow the director to select the other members.

Finally, although one summer's observations would amply repay the time spent and expense incurred, provision could be made to secure greater results through each party arranging to have its observations carried on by parties in succeeding seasons. It seems possible now that Greenland may be visited nearly every year by expeditions from the United States; certainly the six Peary expeditions have shown this to be practicable. In such case the return of a single member of a party to the position of the preceding year would enable a valuable series of observations to be made upon the edge of the inland ice and upon the motion of the glaciers by means of datum points established by the parties. Such datum points could be so located as to be found and used by one not a member of the original party.

The writer hopes to return himself to Greenland during the coming summer and continue the observations begun by the Boston party last summer.

A word may be necessary to call attention to the summer climate of Greenland. For camping during that season there is no serious exposure involved. The very long days with the sun above or only slightly below the horizon for the full twenty-four hours prevents the temperature ever becoming very low, and the continual daylight affords facilities for work or travel at all hours.

During the last summer the Boston party encountered no serious cold, the lowest recorded with a minimum thermometer being 26° above zero, F. As far as climate is concerned there is no reason why Greenland should not be a pleasant resort for the summer.

Geo. H. Barton.

Massachusetts Institute of Technology, Boston, Mass.

Color-blindness and William Pole: A Study in Logic.

It has long been matter of common knowledge among psychologists that the color-sensations which persist, in the ordinary cases of partial color-blindness, are blue and *yellow*. This was a requisite consequence of Hering's theory and was predicted by him; it was *proved* by the first case of monocular color-blindness which was observed—that of v. Hippel in 1880—and this proof has been abundantly confirmed by the cases which have been discovered since. But the theory of Young and Helmholtz apparently required that, when two color-sensations only persisted, if one was blue the other must be either red or green. Now, the physicists (and most physiologists as well) too hastily took the Young-Helmholtz view as expressing fact and not theory, and they continued to infer (although Helmholtz himself had recognized the true state of the case) from the circumstance that the partially color-blind had two sensations only, that these sensations were, in the ordinary cases, blue and *red*, or blue and *green*; and in accordance with this deduction they classified most cases of color-blindness as red-blindness or green-blindness (without expressly stating that, in their view, in both cases, blindness to yellow was involved as well). There was absolutely no reason *except the theory* for affirming that the warm color of the defective person was either red or green; all that was known was that it occupied that portion of the spectrum which, for the normal