

errors which one who had a personal familiarity with the region under discussion would have avoided. In his compilation he has not only included many statements which were based on unreliable authorities, but has totally misinterpreted the results of such investigators of the region as Dr. George M. Dawson. It is my purpose to point out some of the more glaring errors contained in this article, so that they may not become current in geographical literature.

The description of the northern Rockies, the St. Elias and Alaskan ranges, as composed of a series of volcanic peaks, hardly deserves comment, especially as they are described as a coastal fringe of volcanoes and compared with the volcanic peaks of the Japanese and Philippine Islands. A less apparent and therefore more serious blunder is the grouping together, as one range, of the Cascade, the St. Elias and the Alaskan ranges. The recent volcanoes of the Aleutian islands and the Alaskan peninsula are described as a southwesterly continuation of the volcanoes of the St. Elias and Alaskan ranges. As a matter of fact, the Alaskan range, so far as now known, is an entirely distinct feature, both geologically and geographically considered, from the belt of volcanoes which separates the Bering Sea from the Pacific ocean. The southwestward extension of the St. Elias range is found in the highlands of the Kenai Peninsula.

According to Capt. Immanuel, the glaciation of northwestern America was produced by an ice sheet which had its source in the high mountains of Greenland and moved westward across the lowlands of the northern part of the continent. He states that this ice sheet impinged on the Rocky Mountain front, and was split into two divergent glaciers, of which the southern one passed southward through the Columbian depression and into California, while the northern descended the Yukon valley. The ice sheet, during its long journey, is supposed to have ground up the auriferous quartz veins over which is passed, and their gold contents to have been deposited in the places now found in the Klondike and Nome regions. This astonishing theory is credited to Dawson

and other American investigators. It is bad enough to have a statement of this nature appear in what purports to be a scientific article, but to credit it to American geologists, especially to such a thorough scientific investigator as Dawson, is the last straw.

The author in the course of the article shows himself to be as unreliable in regard to details as he is incapable of treating the broader geographic and geologic problems. For instance, he has given figures on the output of the Nome gold fields for two years, and in both cases these figures are a million or more dollars in error. For this there is no excuse, as official statements in regard to this production are in print.

The map of the Seward Peninsula which accompanies the paper, is a reproduction of one which was published in a recent report* of the U. S. Geological Survey. To this map, Capt. Immanuel has taken the liberty of adding some axes of mountain ranges of which there is no mention made in the original report. As the latter contains the results of the only surveys which have been made in the Seward Peninsula, it is impossible that there should be any authority for making these changes in the map.

There are many other misstatements which might be pointed out in this article, but I think I have given enough to show that it is an aggregation of glaring inaccuracies and faulty generalizations. Had it appeared in a lesser publication than Petermann's *Mitteilungen*, it would not have been worthy of consideration, but published as it was in one of the leading geographical journals of the world, it seemed to me that for the sake of geographic science attention should be called to its dilettante character.

ALFRED H. BROOKS.

VOLCANIC DUST.

TO THE EDITOR OF SCIENCE: Analysis of some mineral dust from the Martinique eruption.

* Apparently through an oversight, the report, entitled 'A Reconnaissance of the Nome and adjacent Gold Fields,' was omitted from the list of authorities quoted in this article.

tion is subjoined. The sample examined fell on board of the *Alesandro del Bueno*, a vessel distant at the time about one hundred miles from the scene of the disaster at St. Pierre.

Silica	53.34%
Sesqui-oxides of iron and alumin- ium	30.68 "
Calcium oxide	10.47 "
Magnesium oxide	4.12 "
Sulphur	0.17 "
Phosphorus	trace

The powder is highly magnetic; in all probability some of the iron present is magnetite.

F. G. WIECHMANN.

THE SUBDERMAL MITE OCCURRING AMONG BIRDS.

TO THE EDITOR OF SCIENCE: The interesting observations of Mr. Beebe (SCIENCE, May 9, 1902) require some additions, since the only author to whom he has referred gives by no means a complete statement regarding the character or occurrence of the mite. A form very similar if not identical with this has been reported a number of times: H. Garman, 1884, Leidy, 1890, and Kellicott, 1892, have noted its occurrence in various hosts in America, and it has been studied carefully by several investigators in Europe. In a paper published in *Psyche* (Volume VIII, pp. 95-100) I have given a discussion of the genus and its life history, together with a full bibliography up to that date.

It is probable that the mites found by Mr. Beebe are simply stages in the life history of some of the plumicolous sarcoptids. It may be seriously doubted whether the inferences drawn from Mr. Beebe's observations, that these mites were the cause of death of the birds noted are sufficiently well grounded. Certainly similar stages occur frequently in pigeons without apparently affecting their vitality and I should also doubt that the treatment advocated by Mr. Beebe would be likely to yield the results desired. It is altogether probable that a reduction in the number of feather mites would be accompanied by a reduction in the number of these subdermal

larvæ, but the view of Mégnin is well known whereby the plumicolous sarcoptids are to be grouped as symbionts rather than as parasites by virtue of the assistance they afford to the host in keeping the surface of the skin and feathers free from débris.

HENRY B. WARD.

AN INTERESTING INVITATION.

IT is not long ago that there were people who maintained very stoutly that there existed an irrepressible conflict between religion and science. Undoubtedly there have been and there will continue to be conflicts between sciolism and religiosity. Men who are possessed of scientific truth, but lack religious or theological information of high order, may in time to come, as they have in times past, imagine that their views are antagonistic to religion; and conversely men possessed of religious truth or half truths will no doubt arise in the future, as they have in the past, who will aver that the knowledge which they have is in conflict with scientific propositions held by others. People who see only one side of a subject are given to logomachy, and if they are Scotch, or Scotch-Irish, to heated controversy. They cannot help it. In the end neither religion nor science suffer much from the squabbles which their disputatious tempers create.

It is a pleasing incident in connection with the coming meeting of the American Association for the Advancement of Science, that on March 24, 1902, the Federation of Churches of Pittsburgh, Allegheny and vicinity, held a meeting and adopted unanimously the following resolutions:

"Inasmuch as all truth is one and is divine and inasmuch as all organizations for its conservation and propagation are kindred, the Federation of Churches of Pittsburgh, Allegheny and vicinity records its pleasure in the fact that the A. A. A. S. is to hold its anniversary in Pittsburgh this year.

"In behalf of the Churches we desire a large and representative meeting here of the Seers and Prophets of Science.

"In behalf of those interested in the ad-