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 aluminium	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-

vancement of education and knowledge, we extend to them a hearty welcome."

It is plain from these resolutions that the clergy of these most orthodox, most order-loving, and church-going cities are not afraid of their scientific brethren. They have even gone a step further, and they extend to the members of the American Association for the Advancement of Science a cordial invitation to occupy so far as possible the pulpits of their churches on the morning and evening of June 29. It is sincerely hoped that this invitation will he heeded and that a number of the members of the Association will avail themselves of the opportunity to present to the large and intelligent audiences, which will greet them, such phases of scientific truth as may be appropriately presented before worshiping assemblies. As Chairman of the Local Executive Committee charged with making arrangements for the coming meeting, and on behalf of the clergy of the city, I desire by special request to urge those who are coming to the meeting to bring with them addresses of such a character as they may feel inclined to present, and if they will notify me in advance—which I hope they will do—of their willingness to address such audiences, we will arrange with the clergy for the assignment of such speakers to various pulpits. Scientific men as well as clergymen have 'barrels,' and I trust that not a few will open up their barrels before coming to the meeting and bring with them from their treasure houses 'things new and old' which the good people of these cities will be glad to hear.

W. J. Holland.

SHORTER ARTICLES.

HENRI FILHOL, PALEONTOLOGIST.

By the death of Henri Filhol, French paleontology has suffered a severe loss. As a successor of the school of de Blainville and contemporary of Professor Albert Gaudry, he has rendered distinguished service, especially in his originality as an explorer of the famous deposits of the Phosporites du Quercy, terminating in his volumes published in 1877, and of the Upper Oligocene, Saint-Gérand le Puy, published in 1879. Continuing this line of research he explored the Lower Oligocene of Ronzon, publishing his results in 1880. These larger volumes together with several memoirs and a very numerous series of preliminary papers have greatly enriched our knowledge, especially of the Oligocene fossil fauna of France.

One of the most important of his discoveries was a complete skeleton of the genus *Macrotherium,* formerly established upon the claws, proving that this animal was identical with the genus *Chalicotherium,* which had been established upon the teeth. It was thus found to represent an extraordinary combination of dentition affiliated to that of the ungulates, and feet apparently affiliated to those of the edentates. M. Filhol himself was disposed to regard this animal as a connecting form; but Cope immediately perceived that it represented a new phyla, and proposed for it the name *Ancylopoda.*

During the writer's last visit to Paris, he found M. Filhol devoting his time chiefly to building up a great collection of comparative osteology, which had been almost entirely neglected since the time of Cuvier. M. Filhol expressed his purpose as follows: 'I had found it impossible to study comparative osteology in the disordered state of the collections, and I determined that I would devote my time to an entire rearrangement, so that students coming to Paris would enjoy opportunities which had been denied me.' The beautifully arranged hall, presenting all the remarkable variations, especially of the mammalian skeleton, will therefore be the monument of M. Filhol's later years.

The superb collections of fossils which he made will, it is hoped, soon be acquired by the state and placed on exhibition in the famous gallery of paleontology in the Museum of the Jardin des Plantes.

H. F. O.

CERTAIN PROPERTIES OF NUCLEI.

In an extended series of experiments, made by shaking dilute solutions of the order of 1 per cent., .01 per cent., .0001 per cent. by weight, and a variety of solutes like HCl,