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,