

of which met the visitors and conducted them by rail or motor-car to factories, laboratories and other places of interest. The shorter of these tours took ten days, during which the party visited Philadelphia, Pittsburg, Niagara, Detroit, Chicago, Cleveland and Boston. The longer tour included a journey to the western and southern States, with visits to Salt Lake City, San Francisco, Los Angeles, Grand Canyon, Arizona, New Orleans, Atlanta and Washington.

The small band of British chemists who had the good fortune to attend this congress and take part in the excursions are unanimous in their praises of the splendid organisation and cordial generous hospitality experienced at every stage of their visit. American chemists are to be congratulated not only on a congress of great scientific interest and importance, but also on the unqualified success which invariably attended their praiseworthy efforts to entertain and instruct their guests.

G. T. MORGAN.

#### PREHISTORIC MURAL DECORATIONS IN BACON'S HOLE, SOUTH WALES.

THE cave of Paviland (Gower, South Wales), first investigated by Buckland so long ago as 1823, has lately acquired a fresh interest in the light of recent discoveries made in France.

Most of the objects found by Buckland are exhibited in the Oxford University Museum, where they fill the greater part of a case devoted to the Aurignacian age. Among them are cylindrical rods (like lead pencils in size and shape) carved out of mammoth ivory, an ivory lissoir (*i.e.*, smoother), and some other rudely shaped pieces of ivory. Prof. Breuil, the greatest authority on Aurignacian remains, being on a visit to Oxford, made an examination of these objects last week and unhesitatingly referred them all to the Aurignacian age. There are also some fragments of a beautifully worked ivory ring, about the size and shape of an Indian bangle, or a little smaller; these also were assigned with equal confidence to the Aurignacian, precisely similar rings having been found in deposits of this age in France.

As a consequence of these results, Profs. Breuil and Sollas decided to visit the caves of Gower in the hope of finding some painting on the walls. A halt was made on the way at Swansea, in order to examine the rich collection of flint implements from Paviland which are preserved in its museum. These proved unusually interesting, and were for the most part identified by Prof. Breuil as Upper Aurignacian, a few being Proto-Solutrian. A systematic search was then made of the caves, beginning with Paviland, on the west, and working towards Bacon's Hole, on the east; as cave after cave failed to yield any signs of painting, hope began to wane, but, on entering Bacon's Hole, colour was seen on the right-hand wall. Closer examination revealed the presence of ten bright red bands, approximately horizontal or slightly divergent, fan-like, arranged one above the other in a vertical series, about a yard long,

each band being perhaps a foot in length and one to two inches in breadth, but no exact measurements were made. The stalactite which has tapestried the wall is very clean and has completely sealed up the red pigment (iron-ochre), so that it cannot be removed by rubbing.

It is of interest to note that similar bands, similarly arranged, but only eight in number, have been observed at the end of the great gallery in the Font de Gaume of Dordogne.

It is to be hoped that a general search will now be made in our English caves for other examples of mural decoration; they may be easily passed over by the casual visitor, and to be seen must be looked for.

#### NOTES.

As already announced in these columns, a meeting is to be held at the Mansion House at 2.30 p.m. on October 23 to take steps to raise a fund for the establishment of a memorial to the late Lord Lister. Among those who will address the meeting are the Prime Minister, the president of the Royal Society (Sir Archibald Geikie, K.C.B.), the president of the Royal College of Surgeons (Sir Rickman J. Godlee), Lord Avebury, F.R.S., and the Hon. W. F. D. Smith.

THE Paris correspondent of *The Times* announces that the international conference on time reckoning was opened at the Observatory on October 15 by M. Guist'hau, Minister of Education; and M. Bigourdan, member of the Institute and of the Bureau des Longitudes, was elected president. The conference has been summoned mainly with the object of dealing with various practical uses of wireless telegraphy in the synchronisation of time signals throughout the world.

SIR GEORGE DARWIN, who recently underwent an operation, continues to make such good progress toward recovery that no further bulletins will be issued.

THE death is announced, at the age of fifty-eight, of Mr. F. H. Low, the honorary secretary of the Röntgen Societv. Mr. Low was the medical officer to the X-ray department of the London Medical Graduates' College and Polyclinic.

IT is announced, through Reuter's Agency, that the Nobel prize for medicine for 1912 has been awarded to Dr. Alexis Carrel, of the Rockefeller Institute for Medical Research in New York, for his works on the suture of vessels and the transplantation of organs. The prize this year is said to amount to about 7800*l.*

A COURSE of six lectures on the properties and manufacture of concrete is to be given, by Mr. H. Kempton Dyson, secretary of the Concrete Institute, at the Concrete Institute, Denison House, Vauxhall Bridge Road, Westminster, at 5.30 p.m. on Tuesdays, beginning on November 12. The lectures are free, and tickets of admission may be obtained from the secretary of the institute.

A MEMORIAL service for the late Mr. H. O. Jones, F.R.S., fellow of Clare College, Cambridge, demon-