

THE FRENCH ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE.

THIS year's session of this Association was opened last Thursday at Nantes, under the presidency of M. d'Eichthal, who is largely connected with French railways. The income of the Association for 1874 was 37,126 francs, and its capital fund amounts to 174,731 francs. In 1874, 5,350 francs were distributed for purposes of research, and already, owing to the generosity of three of the foundation members, 7,000 francs have been allotted to other purposes without trenching on the regular resources of the Association. This year 13 foundation members and 500 annual members have been added to the Association.

The President in his opening address spoke of the intimate connection between pure science and the various methods employed to satisfy the wants of humanity. It would be almost impossible, he said, to enumerate all the branches of human activity which owe their success to the researches of pure science, — Hygiene, Medicine, Surgery, the Fine Arts, Mechanics, Industry in all its branches, Mining, Metallurgy, Textile Industries, Lighting, Warming, Ventilation, Water Supply, &c. He then referred in detail to several examples of the influence which the results of science have had upon progress in the arts, with the motive forces of water, air and steam, mentioning a multitude of names of men eminent in pure science, from Pascal and Boyle down to Faraday and Sir William Thomson, upon the results of whose researches the great advances which have been made in machinery of all kinds have depended. M. d'Eichthal then spoke of electricity in connection with the names of Oerstedt, Ampère, Faraday, Becquerel and Ruhmkorff; passing on to speak at some length of the steam-engine in its various forms, of the progress which by means of scientific research is being made in its construction and its uses, and of the great services which this powerful application of a scientific discovery renders to man. M. d'Eichthal advocated the establishment of local centres of culture as the best counterpoise to that over-centralisation to which France owes so many of its social misfortunes. "In our time," he said, "science, history, literature, have great wants. Libraries, lecture-halls, laboratories, costly materials, instruments numerous and expensive, are indispensable to pupils for learning and to teachers for carrying on their researches; it is by putting, on a large scale, these resources at their disposal, that we can attract and fix in our midst men eminent in all branches of human knowledge."

M. Ollier, the General Secretary of the Association, gave a detailed *résumé* of the work done at Lille last year.

M. d'Eichthal has been very well received in Nantes, having been greeted with a serenade on Wednesday night.

The most notable foreigner present at the meeting, Admiral Ommaney, was elected, *pro honore*, president of the Geographical Section. The Geographical Congress of Paris has evidently diminished the attendance at the Nantes meeting, although M. Dumas and M. Wurtz have displayed on its behalf a most creditable zeal. Two ladies delivered addresses, on "Female Condition," and the "Sanitary Condition of Schools;" rather a novelty in France, ladies very rarely appearing as lecturers.

The excursions, which are by far the most interesting part of the proceedings, began on Saturday. A balloon ascent is contemplated for to-day. The balloon will be exceptionally large, 4,000 metres, conducted by local aeronauts who have organised an aerial sporting club.

NOTES

AMONGST the objects which have been recently added to the galleries of the Paris Industrial Exhibition of Geography, and are attracting public notice, we may mention a collection of French birds exhibited by M. Bouvier, the collection of apes from the Gaboon, by the Marquis de Compiègne, and a number of antediluvian fossils from the Mentone Caves. The skeletons of two children which had been buried together are in a splendid state of preservation, exhibiting admirably the characteristics of prehistoric cave-life. These two young people were buried in the home of their parents, very probably because it was the only means of defending their bones against the teeth of ferocious hyænas and other large carnivorous animals which were

disputing with man the empire of the future Gaul. The bones were covered with small shells, of which the loin cloth of the departed youngsters had been made. Neither of them had any ornaments in bone, jasper, or pearl, such as is generally discovered under similar circumstances when the skeleton is that of an adult. No child is buried with such objects in Polynesian islands, as none are allowed to wear them even when belonging to the regal families.

In connection with the Exhibition and Congress, it is believed that a series of proposals will be made to the French National Assembly for the promotion of the study of geography. The principal and most effective is to have a relief map of each parish in the parish school, so that pupils may learn to understand the purpose of geographical maps.

THE large reflecting telescope at the Paris Observatory is completed, although it will not be brought into use for two or three months. The equilibrium of the tube is perfect, and it can be directed with the utmost facility on any part of the heavens, although it weighs about six tons.

THE Commission appointed by the Prefect of the Seine for deciding on the improvements to be introduced in the construction of lightning conductors have just published their report. They are of opinion that the conductors should terminate in a point of copper instead of platinum as recommended by the Academy, and propose to institute an annual inspection of lightning conductors, as recommended by M. Wilfrid de Fonvieille in his pamphlet, "Lightning Conductors and the necessity of controlling them." A series of measurements will be presented to the Municipal Council in the next session. The inspection is to take place in autumn, when the stormy season is over.

THE annual provincial meeting of the Iron and Steel Institute will commence, in Manchester, on Tuesday, September 7, under the presidency of Mr. William Menelaus. The Council of Owens College have granted the use of that building for the business meetings. On Tuesday, the Mayors of Manchester and Salford respectively will welcome the members of the Institute, and the remainder of that and Wednesday morning will be devoted to the reading and discussion of papers. On the afternoons of Tuesday and Wednesday, various works in the neighbourhood of Manchester will be open for inspection. On Tuesday evening there will be a *conversazione* in the Town Hall; on Wednesday evening the members will dine together in the Hulme Town Hall; and on Thursday they will visit works within easy reach of Manchester. On Friday, the whole day will be devoted to North Staffordshire.

DURING last week the British Archæological Association made frequent excursions to places around Evesham, and in the evenings a number of papers were read, mostly of strictly antiquarian interest. The Cambrian Archæological Association also held its annual meeting last week at Carmarthen, both meetings being brought to a close on Saturday. Next year the latter body meets at Abergavenny under the presidency of Mr. Freeman.

MR. HENRY WILLETT, writing with reference to the Sub-Wealden Exploration, states that the committee have "succeeded beyond their fondest anticipations in solving the original problem, and can now state with certainty that palæozoic rocks do not exist at a depth variously estimated at from 700 ft. to 1,700 ft." From 1,670 ft. to 1,750 ft.—the depth now reached—the strata are shattered and very soft, greatly retarding the work, and seriously imperilling any prospect of attaining a much greater depth. Although at any moment a change of strata may be reached, Mr. Willett is not sanguine that he ever will be able to