

The scientific work at the museum has its roots in a series of expeditions organized towards the end of the nineteenth century, the first of which was a search for bison in the north-west in 1887. Towards the turn of the century, the museum played an important part in the recovery of the fossil record in vertebrate palaeontology from the Mesozoic and Tertiary strata of the west, and some of the specimens then recovered are still jewels in the museum's exhibition. At the beginning of the present century, the museum sent expeditions to Central Asia, South America and the South Seas. With the decline of interest in and even usefulness of the big expedition, however, interest turned to the more sedentary forms of biological research which now occupy the research staff. (The search for specimens

or for ecological evidence nevertheless remains an important part of what the museum does, and the Andes remain a favourite hunting ground.) The museum also maintains five field stations, two on Long Island and one each in Florida, Bermuda and Arizona. Vertebrate palaeontology at the museum, already distinguished enough by contributions such as those of Dr George Gaylord Simpson—one of five scientists given a medal at this week's celebrations—has been further strengthened in the past few months by the transfer to the museum of the Childs Frick Collection in vertebrate palaeontology together with the staff of the Frick laboratory and an endowment of \$7 million for maintenance and continued financial support.

FAST TRANSPORT

Uncertain Acceleration

THE inauguration last week of the eagerly awaited fast rail service between Boston and New York was something of a disappointment. The first round-trip journey on Tuesday, which carried a galaxy of dignitaries, was successful enough, even though the journey time was only twenty minutes less than the 4·25 hour time followed rather fitfully by conventional trains. The Penn Central Railway was, however, downcast to have to turn away the first fare-paying passengers on Wednesday with the news that the locomotive had broken an oil-feed pipe on the previous evening, and that the first real service would be provided only on Friday. The manufacturers of the locomotive, which uses a gas turbine as a power plant, say that this failure was not among those which caused the introduction of the new equipment to be postponed from 1967.

This disappointment apart, there seems no reason to doubt that the new railway service will eventually shift much of the passenger traffic between the great cities of the eastern United States back to the railways.

Already the new service between New York and Washington, introduced only ten weeks ago, seems to find no difficulty in attracting passengers. The first services were scheduled to take three hours, with five stops between New York and Washington, but the railway company has now also put on a non-stop service which has reduced the running time to 2·5 hours.

Many of the attractions of the new services stem from discontent about air travel along the crowded airways in the east, and in particular with the time wasted at each end of a journey. The railway companies are also, however, winning customers by offering fares which already include a meal and some of the other side-benefits of air travel. The development of these fast trains has the backing of the Federal Government, and the performance of the services on the Boston–New York–Washington runs will eventually determine the future pattern of services between a great many other pairs of United States cities which are separated by 200 to 300 miles.

MEDICINE

Neurological Research

MANY neurological or sensory disorders can now be prevented or effectively treated if they are diagnosed early enough. The United States National Institute of Neurological Diseases and Blindness, in its new publication, *Research Profiles, 1968*, stresses the increasing importance, for early diagnosis, of research in the perinatal period. Scientists at the institute suspect, from the data they have collected from about 60,000 pregnancies, that diseases such as cerebral palsy, mental retardation, epilepsy and deafness are associated with prenatal, natal and postnatal damage to the nervous system. One of the most significant results is that a number of maternal illnesses, particularly diabetes and gall-bladder disease, may alter the food supply to the foetus and induce some mental retardation. Other statistics indicate that there is a relationship between birth weight and intelligence—in sets

of identical twins, the child with the lower birth weight and smaller head was found to have the lower IQ.

In the report, prepared for the 1968 Congressional fund-allocation hearings, the director, Edward F. MacNichol, referred to four other areas of "great national need" to which the institute intends to devote an increasing proportion of its funds. Four medical centres now have grants from the institute to establish centres for clinical research into head injuries. The institute also has a contract programme to study the physical forces acting on the head during an accident with the long-term aim of designing more effective safety devices. The study and control of epilepsy has always been an important feature of the institute's programme and, together with five other medical centres, it is now developing a collaborative study to evaluate various epileptic states and to test