

than £60,000 has already been promised. In July 1940 the Society will hold an International Aeronautical Conference at Stratford-on-Avon. The active support of the Air Ministry and the Society of British Aircraft Constructors in Great Britain and of the leading authorities in the United States, France, Germany and Italy has been promised.

New Air Speed Record

It is reported that Herr Dieterle, flying a German Heinkel aeroplane fitted with a Mercedes-Benz engine, has set up a new speed record of 463.8 miles an hour over a three kilometre course. This does not rank as an official record until it has been examined and homologated by the *Fédération Aéronautique Internationale*; but there is no reason to doubt that this formal recognition will be given in due course. This has beaten three world records at the same time: the 3 km. of 380 m.p.h. held by Wurster (Germany), the 100 km. of 394 m.p.h. held by Udet (Germany), and the absolute speed record of 440.7 m.p.h. held by Agello (Italy). No certain details of the aircraft are known, but it was probably developed from the Heinkel He.112.U used by Udet for the 100 km. record in June 1938. Statements that have appeared in non-technical reports that the machine was a single seater fighter fitted with an engine of 1,175 horse-power are obviously misleading. Any machine of this class must have been very thoroughly 'cleaned up' in design for such speeds, and even with such alterations the engine must have been both speeded and boosted up to a power of well over 2,000 b.h.p.

Deaf-Aids in Theatres

An interesting development in deaf-aids has been recently demonstrated in Wyndham's Theatre, London, and is being installed in a number of cinemas. Hitherto a deaf person in a cinema could frequently be supplied with a listening telephone, operated by an amplifier following a microphone located near the loud speakers behind the screen, or from the actual sound-film amplifying equipment itself, but the user was necessarily tied to his seat by the connecting wire. In the 'Telesonic system', made practicable by Messrs. Multitone Electric, an efficient type of deaf-aid is operated by a pick-up coil, in which are induced currents from an energized cable hung round the auditorium or placed under the carpet. In a theatre, a microphone in the footlights operates a specially corrected amplifier of about ten watts capacity, the output of which is fed into the magnetizing cable by a specially designed transformer. On demonstration, the device worked well and adequate audition was obtained, with freedom to move over the whole area of the seats, or even some distance outside this area. The fundamental idea of direct speech or music induction without a radio carrier is not, of course, new, but it is understood that the main feature of the invention is the disposition of magnetizing coils such that cross-talk between adjacent theatres or cinemas using the system is obviated. The normal

deaf-aids manufactured by the Multitone Company are now arranged to operate with the 'Telesonic system' in theatres.

Visual Aids in American Schools

A RECENT survey of the employment of visual aids in schools representing two thirds of the total enrolment in public elementary and secondary schools in the United States indicated that the use of (1) pictorial materials, (2) objects, specimens and models, and (3) visual aids which require mechanical equipment, was habitual in the instruction of (1) 61 per cent, (2) 52 per cent and (3) 27 per cent, respectively, of the pupils included in the survey, and that about 10,000 projectors were owned by the schools. A large percentage of the school systems not reporting were in rural districts, and the data concern, therefore, conditions in urban communities primarily. An interpretative study of these data has been published by the Office of Education ("School Use of Visual Aids" Supt. of Documents, Washington, D.C. 10 cents). There is very widespread interest in the subject (which formed the theme of thirty-seven research studies in 1936-37), and there is general agreement that the motion-picture has great potential educational value and but little apprehension that it may prove, as forecast by Georges Duhamel (in "Défense des Lettres") and others, to be one of applied science's Greek gifts to culture. Among the further developments recommended in the light of this survey are the production of high-grade educational films, a nation-wide distribution system, training courses in the technique of teaching with motion pictures and other visual aids and improvement of the 16 mm. projector so as to make it easier for amateurs to operate.

Antiquity

AN editorial note in *Antiquity* of March, 1939, directs attention to an important development in the study of European prehistoric chronology. E. H. de Geer, it is stated, has succeeded in equating the growth-rings of trees from the ancient mound of Rakenhangen in the Romerike district of Norway with those of a giant Californian sequoia on one hand, and with clay varves from Angermanland in North Sweden on the other. The tree trunks examined were preserved when a shaft was sunk to the base of the mound in 1868. The investigation points to A.D. 931 as the date of the cutting of the trees and the erection of the mound. As the editor of *Antiquity* points out, the acceptance of the full implication of this important discovery must await further critical examination; while the application of dendrology to European chronology is not without its peculiar difficulties. The March issue of this enterprising periodical well maintains its high standard of interest, in part owing to the inclusion of Prof. V. Gordon Childe's lecture on the relations of India to the West before the time of Darius, which originally was delivered before the Warburg Institute on October 10, 1938, and Dr. R. E. Mortimer Wheeler's report on his excavations in Brittany, to which