many articles in about 5,000 journals. *Index Medicus* abstracts journals published in Hebrew, Vietnamese, Icelandic, Chinese, and a couple of dozen other languages. By a combination of mechanical aids, which include punched tape, sorting and collating machines and photography, the *Index* can now give references within a few weeks of publication. It is easily the best, most up-to-date, efficient and most comprehensive source of current literature in medicine and the medical sciences.

Pelvic Dimensions related to Infant Size

OBSTETRICIANS practising in Uganda have long been aware of the problem of disproportion between the size of the fœtal head and that of the maternal pelvis. Among the Ganda (a tribe at the northern limit of the Bantu linguistic area) this is especially true and results frequently in dystocia. In the Department of Obstetrics, Makerere College, between 1953 and 1955, for example, cephalopelvic disproportion made operative delivery obligatory in 12·2 per cent of 5,137 patients. A knowledge of the range in size and configuration of the mature female pelvis found in the Ganda is thus of practical importance to the clinician practising locally. Dr. David Allbrook and Dr. Elsie M. Sibthorpe, of the Departments of Anatomy and Obstetrics, Makerere College Medical School, have described the form and dimensions of the female pelvis in the intralacustrine Bantu, represented by the Ganda (*S. Afr. J. Med. Sci.*, 26, No. 3; October 1961). Their report is based on a dual study of a series of radiological pelvimetry examinations in hospital patients, and a series of prepared pelvic skeletons from the Department of Anatomy, Makerere College, as well as on two measurements made on new-born Ganda infants born in the Department of Obstetrics. Details are given of the techniques used in assessing radiological pelvimetry examinations and osteological specimens in a series of Ganda females, with special attention directed to the assessment of the sciatic notch in the skeletal material. A series of 654 Ganda infants were weighed at birth and the maximum head circumference was recorded. The results of these surveys indicate an average pelvis which is smaller even than that of the South African Bantu, but which is of classically female proportions, and an average new-born infant who is significantly smaller than the Scottish infants reported in a study by R. B. W. Ellis in 1951.

Measuring Phase and Group Delay

WHEN electromagnetic energy is transmitted through a system there will be some phase shift and phase delay. If the energy is not a simple sine wave, but is of a complex nature, then the delay of the complex package may be different from the delay of sinusoidal components in the complex group. The delay to the whole is called 'group delay' and the delay to the component parts of the signal is termed 'phase delay'. The difference, if it exists, between these two delays may change with the frequency and distortion results. This distortion may occur in any transmission system – a television system extending from the camera tube to a domestic cathode-ray tube, or in a feed-back amplifier on the laboratory bench. Engineers and physicists working on transmission problems often have to measure these delays in the laboratory. Suitable commercial equipment rarely exists and the investigator often has to build his own test equipment to do the measurements. Before any reliable results can be obtained, some standard has to be found to check the equipment. At first it would seem that a satisfactory standard giving a known delay could be made up from so-called lumped constants, that is, inductors and capacitors. In practice it is impossible to make such networks behave as predicted. Experience has shown that the best standard is a length of coaxial cable, and in an article in *R and D: Research and Development for Industry*, D. G. W. Ingram, of the General Electric Company, points out the value of using such a cable as a standard and suggests ways of avoiding the errors that might occur in practice even when using the preferred coaxial cable standard (No. 5; January 1962. Pp. 124. Published monthly. Annual subscription 35*s.*; United States and Canada 5.25 dollars; single copies 2*s.* 6*d.* London: Heywood and Co., Ltd. Published on behalf of British Aviation Publications, Ltd., 1962).

Earthquake-resisting Bonds in Brickwork

THE weakest part of any brick building is the bond or joint between brick and mortar, and little is known of the factors controlling the strength of this bond. The problem is of particular importance in New Zealand, where the risk of earthquakes limits the use of brick in a building of any great height. Dr. L. Swindale, director of the New Zealand Pottery and Ceramics Research Association, has described the work of his Association into the brick–mortar bond (*New Zealand Science Review*, 19, No. 5; 1961). Research indicates that two of the most important properties of mortar are its plasticity and, hence, its workability, and its ability to retain water against the suction of the brick so that it stays wet long enough to set and develop strength. To achieve good bond strength, these two properties must be balanced in relation to the characteristics of the brick used. A characteristic of brick is its power to absorb water, including water from fresh mortar, and experiments have proved the value of the age-old custom of soaking bricks with water before use. For laboratory experiments, 10,000 mini-bricks, one-sixth standard size, were produced at the works of one of the member firms. The New Zealand Pottery and Ceramics Research Association is one of the seven incorporated research bodies supported jointly by the Department of Scientific and Industrial Research and the manufacturers, which were formed to assist the technological development of New Zealand's industries.

Technical Administration in Applied Research Laboratories

K. E. JERMY of the United Kingdom Atomic Energy Authority (Reactor Group), Reactor Technology Branch, Capenhurst, Chester, has explained how the effects of shortage of technical manpower in large applied research laboratories can be somewhat mitigated by an efficient administrative system, which relieves working scientists of non-scientific activities so far as possible (*Research Applied in Industry*, 15, No. 2; February 1962). The normal administrative services should be integrated with a technical administration section, having a staff of people possessing scientific training and experience as well as specialized, non-scientific skills. A typical section comprising a laboratory secretary, planning officer, technical editor, librarian and information scientist, and photographic studio can provide laboratory and higher managements with information on such