

normal cases will ever become so popular here as they are in the United States; for in Britain a far larger proportion of women are delivered by midwives alone. Minor forms of surgical interference do not commend themselves to the doctor working in the patient's own home, with the assistance of one nurse only, and apart from the convenience of patient and accoucheur, there is a strong feeling that any interference, however slight, must increase the risk of sepsis.

THE BIRTHDAY HONOURS

THE distribution of birthday honours among medical men this year shows recognition mainly of outstanding vision, zeal, and competence in administration. The driving force which succeeded in lifting St. Bartholomew's Hospital medical college from cramped quarters at Smithfield to the only site ever likely to be available near the hospital was not only generated but maintained continuously at high pressure by the dean of the college, Mr. Girling Ball, who receives a knighthood. We do not have to move far from Smithfield to the General Post Office to congratulate Dr. H. H. Bashford on a similar honour. While in control of the medical aspect of a great national service he has found time to make valuable analyses of its complex sickness and disability records, besides delighting the general reader with his books and stories. Of the other new knights, Dr. W. J. H. Haslett, J.P., is honoured for political and public services in Middlesex, and Mr. R. B. Wade has fulfilled with judgment onerous duties as president of the Medical Board of New South Wales. The next eight names on our list (see p. 1413) are also those of doctors who have successfully fulfilled important administrative functions abroad and at home—three of them, Mr. Mitchiner, Dr. Fenton, and Dr. Hurdon, actually in London. Of those who coöperate closely with medical workers, Russell Pasha, director of the Central Narcotics Intelligence Bureau at Cairo, becomes K.B.E., and Mr. H. W. S. Francis, director of the local government division of the Ministry of Health, a C.B.; while among the new commanders of the British Empire are Miss Ruth Darwin, a senior commissioner of the Board of Control, and Mr. Louis Fleischmann, chairman of the Royal National Orthopaedic Hospital. Chemists and veterinary workers honoured include Prof. T. H. Easterfield, F.I.C. (K.B.E.), Mr. J. J. Fox, D.Sc. (C.B.), Prof. A. E. Robertson, D.Sc. (C.M.G.), and Mr. W. W. Henderson, M.R.C.V.S. (C.B.E.). If medical scientists receive on this occasion less than their usual share of recognition, all will rejoice at the award of the Order of Merit to Sir Arthur Eddington, F.R.S.

HEPARIN AND THROMBOSIS

THE work of the Toronto school on heparin has now gained international recognition, and the public lecture on heparin and thrombosis given by Prof. C. H. Best, F.R.S., at University College, London, on June 14th afforded a welcome opportunity to learn of these investigations at first hand. After describing the earlier work in W. H. Howell's laboratory, Prof. Best traced the progress of the research in Toronto from its start in 1929 to the present time; the first step was the production of a purified barium-heparin compound by D. A. Scott and A. F. Charles, from which pure heparin could be obtained by precipitation with acetic acid after removal of barium by the addition of an excess of ammonium carbonate. In urging the need for standardisation of the product, Prof. Best suggested that one milligramme of this purified heparin, which can be administered intravenously to animals without ill effect, should be

accepted as equivalent to 100 units. It had been found that an initial dose of 40 units per kg. body-weight, followed by continuous intravenous injection at the rate of 30 units per kg. per hour, would prolong the coagulation-time to about thirty minutes. This procedure would prevent thrombosis after mechanical or chemical traumatisation of the veins or coronary arteries in dogs. The formation of white thrombi in a glass or Cellophane arteriovenous shunt could be prevented by similar means. Prof. Best showed a very beautiful film illustrating these experiments.

Compounds of heparin with benzidine and protamine had been produced by his chemical colleagues: the former was partially insoluble and when injected subcutaneously had a prolonged and delayed action on the clotting-time similar to that of protamine insulin on the blood-sugar. The heparin-protamine compound was, however, completely insoluble and inactive and injection of protamine neutralised the effect of previously administered heparin. This neutralisation was quantitative and allowed of the estimation of the amount of heparin in a sample of blood; it had been shown to occur in vitro as well as in vivo, and thymus histone had a similar action. Prof. Best described some experiments which showed that the prolonged coagulation-time of anaphylactic shock in the dog was accounted for by an increase of heparin in the blood; this, together with its universal distribution in the body, supported the view that heparin must be regarded as the "physiological anticoagulant."

The clinical applications of this work were recently reviewed in a leading article in our columns,¹ and this week we publish a paper on the use of heparin in blood transfusion by Knoll and Schürch. They have amply confirmed the work of Hedenius, and have shown that heparinisation of the donor allows blood to be withdrawn and remain fluid for some hours, and that no untoward effects are to be noted in donor or recipient.

Dr. GORDON HOLMES, F.R.S., will deliver the sixth Victor Horsley lecture at University College Hospital medical school, Gower-street, London, W.C., on Tuesday, July 12th, at 5 P.M. He will speak on the cerebral integration of the ocular movements, and the chair will be taken by Sir Cuthbert Wallace. Members of the medical profession will be admitted on presentation of their visiting card.

ON June 11th Mr. A. D. LINDSAY, the vice-chancellor of Oxford University, unveiled a window in the Old Ashmolean Building, which the University has decreed shall now wholly return to its original use as a scientific institute. The window, which is the gift of the Friends of the Old Ashmolean, completes a series on the staircase, and bears the coats of arms of the Mercers', Grocers', and Merchant Taylors' Companies and of the Royal College of Physicians of London, whose gifts to the institution it commemorates. It also bears, as a tribute to his work, the arms of Mr. R. T. Gunther, LL.D., curator of the museum. Dr. Gunther afterwards showed two recent gifts to the museum—one of the first X ray tubes of the Jackson type to be made and the first English microscope to be made on the achromatic principle, used by Prof. Baden Powell and given by his son the Chief Scout. Dr. Robert Hutchison, president of the Royal College of Physicians of London, speaking on behalf of the College, said that the roots of medicine went very deeply into the past. The appliances, apparatus, and drugs used by our predecessors are still of interest, and in some cases a warning.

¹ *Lancet*, March 19th, 1938, p. 677.