chlorbutanol added as a preservative. The second preparation is known as 'curarne chloride' and is put up in 100 mg. glass ampoules as a powder. This product is claimed to be identical with the d-tubocurarine chloride originally isolated by King. The anaesthetics committee of the Medical Research Council and the Royal Society of Medicine are endeavouring to bring about standardization in potency of all curare preparations, but in the meantime it is essential to realize the difference which at present exists. It would appear that curare is likely to prove a notable advance for achieving perfect muscular relaxation during light anaesthesia.' 5 references.

J. C. M. (C.


"The blood-pressure is normally controlled by impulses proceeding from the vasomotor centre in the medulla by way of the preganglionic and then the postganglionic sympathetic fibres to the blood-vessels; the impulses constrict the blood-vessels and so raise the pressure inside them. When a spinal anaesthetic is given the blood-pressure usually falls to a varying extent as the anaesthetic diffuses upwards in the spinal fluid and blocks the conduction in the preganglionic fibres. To restore the blood-pressure it is clear that a pressor agent which acts peripherally must be used; no effect will be exerted on the calibre of the vessels by a substance which stimulates the vasomotor centre. The best-known substance which acts directly on the vessels is adrenaline. It cannot, however, be used to restore the blood-pressure because its action is transient, and it is also violent. In 1927 Rudolf and Graham introduced ephedrine. After the introduction of ephedrine, Kischinsky and Oberdisse (1931), working in the laboratory of Paul Trendelenburg, described the properties of meta-sympatol, since known in the United States as neosynephrine. In 1937 Rein introduced veritol, now known in Britain as pholedrine. Phedracin was introduced in 1938; it is not a near relation of adrenaline. Finally methedrine, known in Germany as pervitin, and closely related to amphetamine (which has the proprietary name benzodrine), was described in this country by Dodd and Prescott in 1943. All these compounds are pressor.

"The action of the substances ephedrine, neosynephrine, pholedrine, phedracin and methedrine in restoring a blood-pressure which has been depressed by the injection of large doses of pentobarbitone has been analyzed. The evidence obtained in cats indicates that the best substances are methedrine (pervitin) and ephedrine." 16 references.

J. C. M. C.


"The object of this survey was to determine the usefulness of trilene in general practice. It was carried out in two independent practices for a period of six months. The points of reference were:—(1) Method of administration: (a) choice of appropriate apparatus; (b) technique. (2) Minor surgery, especially as to the possibility of exploiting the known peculiar analgesic properties of trilene. (3) Midwifery. Provided that very painful procedures—e.g., operations on digits—are avoided, the use of the analgesic properties of trilene in minor surgery seems quite feasible. Recovery is rapid and without sequelae, and the agent has not given rise to the least anxiety. Used as a light anaesthetic for minor surgical procedures it appears
ABSTRACTS

597

quite safe. . . [In] midwifery an interesting and otherwise unencountered property of trilene has come to light. In rather more than 20% of cases complete amnesia followed its use. With careful instruction, and close observation of the patient in setting the apparatus, it is thought that this figure might be raised a considerable extent. . . . Used in place of chloroform in the last few minutes of labour, trilene does not show its full range of capability; here the field should be left to the older drug.

"The cheapness of the method is phenomenal; 1 oz. (28 ml.) of trilene will last, as used in midwifery, 3 to 5 hours, at a cost of less than 6 d. The wide variation in the requirements of trilene in different individuals, and in the same individual at different stages in midwifery, necessitates a variable administrator for the full exploitation of its remarkable properties. . . . The general practitioner has in trilene, used in Clover's inhaler, an excellent alternative to the heavy, cumbersome, and expensive N₂O apparatus, both for midwifery and for minor surgery."

12 references.

J. C. M. C.


"The title 'tropical climates' does not imply conditions of heat limited only to the geographical boundaries of the tropics. Many parts of the world outside these geographical limits provide similar climatic problems for the anaesthetist. In addition there is another factor besides that of heat, namely the effect of high altitudes on the administration of anaesthesia. The ideal remedy for the majority of climatic difficulties in the tropics is, of course, a properly air-conditioned opera-

tion theatre block. . . . Air-conditioned theatre blocks are unfortunately expensive to erect and maintain. . . . This being the case, it is necessary to consider the effects of lack of air-conditioning on anaesthesia in hot climates. . . . Whatever apparatus is used, the more vulnerable parts should be duplicated. The best machine is useless if it has to stand idle while a replacement is obtained. . . . If CO₂ absorption is used, it is recommended that the apparatus should be fitted with a circle rather than a 'to and fro' absorber, as it was found that a canister at the face-piece soon became unpleasantly hot, and it was felt that such a state of affairs, if prolonged, would be detrimental to the patient.

"Hot, dry climates provide the optimum conditions for the accumulation of static electricity and the usual precautions as to earthing of apparatus, moistening of rubber parts, avoidance of friction, and of short-circuits of electrical instruments are absolutely essential in such climates. Medical gas cylinders may only be filled to 90% of their normal stated capacity in British tropical possessions. Ether should be supplied in tins and not in bottles—the wastage by evaporation even from unopened bottles was colossal. One frequently heard that it was impossible to induce or to keep a patient sufficiently anaesthetized with open ether in hot climates, but this was soon disproved.

'Atropine should be avoided as a premedicant. Omnopon and scopolamine, or, if not available, morphia and hyoscine, were widely used for this purpose. In addition to being sedative, it was felt that these drugs were less likely to cause disturbance of the heat-regulating mechanism, and thus to diminish another possible factor in the cause of ether-convulsions. As an additional precautionary measure against the occurrence of hyperpyrexia during