tion was established five to ten minutes later, and the pulse became feeble towards the end of this period, but regained a satisfactory volume when the anoxaemia was corrected.

"Artificial respiration was maintained by rhythmic insufflation of oxygen through an endotracheal tube, and the patient's condition remained fairly good, in spite of the profound flaccidity. Spontaneous respiration began to return forty-five minutes after it had ceased, and was fully re-established in a few minutes. The laryngeal reflex became active ten minutes later. The patient did not regain consciousness, however, and during the next three hours she had a series of convulsions. From then, until she died six days later, the clinical picture was typical of grave neuronal damage following cerebral anoxia, with unconsciousness, convulsions, rigidity, mask-like facies and profound dementia. The histological findings were complicated by the presence of a malignant tumor occupying much of the cord and extending into the brain stem.

"Hitherto our knowledge of the effect of different concentrations of procaine on the vital centres has been derived mainly from laboratory animals, chiefly dogs. But results in dogs cannot properly be applied to man, since the quantity of C.S.F. available for dilution is very much smaller in the dog, and the relative susceptibility of the vital centres is different. This case provides direct evidence of the effect of a known amount of procaine in the cisterna magna of a human subject. . . . The tumor may have rendered the neurones abnormally sensitive, but it is clear from a study of Courville's cases that the oxygen lack to which they were subjected could have caused similar damage in healthy neurones. In short, the supposition is that this dose of procaine intracisternally was enough to cause profound, but reversible, respiratory paralysis. The irreversible changes which killed the patient were due to anoxaemia." 9 references.

J. C. M. C.


"In a Scottish E.M.S. hospital, during a period of 27 months, 2,064 surgical procedures were carried out, 1,290 under general anaesthesia and 774 under regional analgesia, mainly by means of subarachnoid block. Many of the operations were for hernia and appendicitis, but most categories of general and special surgery, such as orthopaedics, gynaecology, plastic and ear, nose and throat surgery were included. A considerable number of the patients were workers in war industries and service personnel of both sexes. . . . The postoperative complications . . . include pulmonary collapse, pulmonary consolidation, and acute bronchitis. The term "acute bronchitis" was applied to cases which in addition to cough and purulent sputum showed a rise of temperature and well marked signs of auscultation. There was one death, that of a patient suffering from bronchopneumonia after operation for hernia under spinal block, and who, when resolution was almost complete, developed fatal pulmonary embolism on the sixteenth day after operation (confirmed by post mortem examination). Two further deaths occurred due to pulmonary embolism, both after operations for hernia under spinal analgesia. . . . Sixty-three patients in the series of 2,064 developed pulmonary complications, an incidence of approximately 3 per cent. . . .

"The form of general anaesthesia followed by respiratory complications was,
with two exceptions, nitrous oxide and ether. In 1 case, nitrous oxide and vinyl ether anaesthesia was followed by acute bronchitis, and in another, unsupplemented nitrous oxide anaesthesia was followed by lobar consolidation. . . . After thyroidectomy, collapse occurred in 1 of 2 patients anaesthetised without endotracheal intubation, but did not occur in any patient who had been intubated (nasal intubation in all cases). One patient who had an uneventful convalescence following herniotomy under spinal analgesia, developed atelectasis within twelve hours of having a similar operation performed on the other side, again under spinal analgesia. . . . All 12 patients anaesthetised by local analgesia had suffered from well marked chronic bronchitis before operations; the 5 who developed acute bronchitis had been operated on for hernia. . . . Usually the writer employed fairly heavy premedication; the assistants tended to premedicate more lightly. Postoperative medication with morphia was light and was restricted as much as pain and restlessness would allow. . . . The majority of complications occurred in males, and the highest incidence was in the age group 30 to 40 years. . . . The operations most commonly followed by these complications were herniotomy and appendectomy. Oblique wounds may interfere to a greater extent with the abdominal component in the mechanism of respiration than to paramedian and midline incisions. Excessive tightening of muscles of the abdominal wall during the hernial repair may lead to reduced pulmonary ventilation in the postoperative period and so predispose to respiratory morbidity. The method of anaesthesia employed did not appear to affect the incidence of these complications, and spinal analgesia does not reduce their occurrence. . . . 6 references.

J. C. M. C.


"The Edinburgh Medical School has always maintained that, provided it is administered with care and certain cardinal principles are observed, chloroform is safe within reasonable limits. . . . Premedication was limited to atropine, gr. \(\frac{1}{100}\) except in cases when nitrous oxide, supplemented if necessary with ether or chloroform, was used. In this case morphia gr. \(\frac{1}{6}\) and hyosine gr. \(\frac{1}{100}\) was administered one and a half hours before operation. This was followed in one hour by morphia gr. \(\frac{1}{6}\) and hyosine gr. \(\frac{1}{100}\). If the patient was drowsy, the second dose of morphia was not given. The standard method in the wards where I supervised the anaesthesia was an induction with either C\(_2\)E\(_4\) or chloroform, using the Schimmelbusch mask covered with two layers of lint. A separate mask with 20 layers of gauze was used for the change over to ether. . . . The addition of oxygen was found to prolong unduly the induction stage, and was not used for that reason, but during maintenance it was a routine procedure to deliver small quantities under the mask. . . . "During these 14 years, 9,328 operations were performed. C\(_2\)E\(_4\) mixture was used for 4,050 cases. Nitrous oxide supplemented by ether or chloroform was administered on 576 occasions and chloroform alone was the agent for more than 500 operations. A series of 100 upper abdominal cases were anaesthetised with chloroform alone and no noticeable increase of postoperative sickness was observed. During this period there were no fatalities due to the use of chloroform or C\(_2\)E\(_4\) mixture. . . . My experience of anaesthesia in a Japanese prisoner-of-war camp may be of some interest and I remain con-