divers and submarine escape instructors. Electroencephalograms were taken with subjects inside a recompression chamber. The subject was given arithmetic problems to solve which produced alpha blocking. Air pressure was increased up to 10 atmospheres. Alpha blocking was abolished, and there was an increased incidence of mistakes in solving problems. At 10 atmospheres, symptoms of nitrogen narcosis developed. When oxygen and helium were substituted for air, at the same pressures, the electroencephalogram activity was restored, and there was increased mental clarity. Nitrogen is therefore implicated as the agent responsible for intellectual changes at increased atmospheric pressure. *(Bennett, P. B., and Glass, A.: Electroencephalographic and Other Changes Induced by High Partial Pressures of Nitrogen, Electroenceph. Clin. Neurophysiol. 13: 90 (Feb.) 1961.)*

HIGH PRESSURE OPERATING ROOM A high pressure operating room was constructed, 4 by 6 meters in area, permitting pressures of three atmospheres. A pressure of three atmospheres can be achieved in 12 minutes. This room has been used for saturating blood plasma, intercellular fluid and cells with a high level of physically dissolved oxygen. It has been used for prolonging the period of circulatory arrest under hypothermia; for substituting plasma for hemoglobin as a means of oxygen transport; for preventing ventricular fibrillation under deep hypothermia; and for the treatment of certain anaerobic infections. *(Boerema, I.: Operating Room with High Atmospheric Pressure, Surgery 49: 291 (Mar.) 1961.)*

JOSEPH BARCROFT Barcroft's first high altitude expedition to Teneriffe at 11,000 feet in the Canary Islands was designed to investigate the effect of altitude upon the oxygen dissociation curve of man. Early in this century the mechanism of adjustment to high altitude or low oxygen pressure was unsettled. J. S. Haldane firmly believed that acclimatization was associated with active secretion of oxygen by the alveolar epithelium of the lungs. The studies at Teneriffe, followed by those at 15,000 feet at Monte Rosa supplied additional evidence against the oxygen secretion theory. The first World War diverted Barcroft's physiological interests into the study and treatment of poisoning from war gases. On the basis of chamber experiments, attention was directed to the use of oxygen in treatment. *(Editorial: Joseph Barcroft, The Oxygen Physiologist, J. A. M. A. 175: 802 (Mar. 4) 1961.)*

HYPOTHERMIA Thermal gradients were recorded throughout the dogs' heart during the production and reversion of profound hypothermia with extracorporeal perfusion. Temperature variations as much as 10 C. were noted. It is concluded that thermal gradients alone are not responsible for hypothermic ventricular fibrillation. *(Fisher, B., and Fedor, E. J.: Cardiac Temperature Gradients During Profound Hypothermia with Extracorporeal Perfusion, Proc. Soc. Exp. Biol. Med. 106: 275 (Feb.) 1961.)*

HYPOTHERMIA The pressor response to injection of epinephrine and norepinephrine is potentiated in the anesthetized dog at blood temperatures of 27–28 C. The increased response to norepinephrine is greater than to epinephrine. The hypothermic dog retains reflex activity as indicated by the respiratory and circulatory responses to bilateral cardiac occlusion and hypoxic hypoxia. The magnitude of such a response, however, is less than that seen in a dog at normal body temperature. *(Salzano, J., and Hall, F. G.: Effect of Hypothermia on Reflex Activity in the Anesthetized Dog, Proc. Soc. Exp. Biol. Med. 106: 199 (Jan.) 1961.)*

ATROPINE TOXICITY A systemic reaction, primarily involving the central nervous system, is reported in 5 patients who received topical atropine to the eyes. All the cases occurred in patients who were being prepared for refraction studies following the administration of atropine at frequent intervals for a three day period prior to the refraction. Signs and symptoms may appear minutes to hours after the beginning of the use of eye drops. In none of these cases did excessive