

stituting its constricting action upon the blood vessels for the lack of vascular tone, and, as has been often observed clinically, will materially improve the existing pulmonary edema, while in the second instance, it would but aggravate the condition.

Although my observations are too few to base any general conclusions upon, I think they suggest that artificial respiration may be profitably tried in some cases of right heart failure, due to increased peripheral resistance, as soon as the mechanics of administering air can be perfected so as to avoid intubation or tracheotomy. And in this regard I may say that I have found that a person who is conscious can readily be supplied with air by artificial respiration by the use of an ordinary ether inhalation mask of the Bennett or Clover type. Whether this method will prove possible, in unconscious states or where there is general relaxation, as under anesthesia, I cannot say, but I think it is quite possible.

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Effect of potassium cyanide upon metabolism.

By **GEORGE B. WALLACE** and **A. N. RICHARDS.**

[From the Laboratory of Pharmacology of Columbia University, at the College of Physicians and Surgeons, New York.]

Potassium cyanide was administered to two dogs in amounts sufficient to produce severe poisoning. One animal was kept upon a uniform, analyzed diet throughout the experiment (9 days) and the other was given no food during the experiment (5 days). In both animals an increase in the total nitrogen of the urine occurred on the day of poisoning which continued during the next following day. This increase was caused mainly by an increase in the amount of urea and by slight increase in the amounts of ammonia, total creatinin (sum of creatin and creatinin) and undetermined nitrogen (purin bases, uric acid, allantoin, amino-acids etc.). Neither experiment gave indication of marked percentage increase either of ammonia or of undetermined nitrogen, for the distribution of the nitrogen remained practically normal. Well marked absolute and percentage increase of creatin, and decrease of creatinin, was observed. Creatin was eliminated by the fasting dog throughout the whole period of observation.

Increase in the total sulphur eliminated was marked on the day of poisoning but, unlike the total nitrogen, returned to normal on the following day. The neutral sulphur was increased both absolutely and relatively to total sulphur on the poison day and that following. A corresponding decrease in oxidized sulphur was observed.

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Pneumothorax and posture.

By **CHARLES A. ELSBERG.**

[From the Department of Physiology and Pharmacology of the Rockefeller Institute for Medical Research.]

The sudden entrance of air into the normal healthy pleura often gives rise to a train of grave symptoms. These symptoms have been studied experimentally in dogs. Most of the animals died from the pneumothorax when a large opening was made. Gluck lost all of the dogs he used; Biondi lost 4 of 5; Block, Marcus, Schmidt, Pourrat and Rodet, Tuffier, Murphy, Quenu and Longet, had similar experiences.

In some recent experimental investigations of open pneumothorax I obtained similar results. Many of the dogs either died suddenly as soon as an opening into the pleura was made, or a violent expiratory dyspnea ensued, soon followed by rupture of the mediastinal septum, double pneumothorax, and death. The method of operating on the dogs was the following: The animal was given a hypodermic injection of morphin, and a few hours later was anesthetized with ether; tracheotomy was performed, a cannula inserted, and the administration of ether continued through the cannula. One or more ribs were resected, the intercostal muscles divided, the pleura exposed, and a small opening carefully made in it and gradually enlarged. In a number of the animals, the pressure of the inspired and expired air was roughly measured by allowing the animal to breathe into a large bottle, the tube leading to it from the tracheal cannula being connected by means of a T-tube with a water manometer.

If a small opening (1-5 mm.) is made in the right or left pleura of a dog which is lying on its back, or on its right or left side, the