

never opens. Thus, semiclosed systems may be used with any flow and the excess flow is automatically spilled.

The following are examples of advantages and use of the new head:

(1) It permits automatically controlled respiration with no rebreathing, using any desired gas mixture.

(2) It allows ventilation with room air for chronic respirator patients. To obtain this, the bag is removed, the expiratory tubing is removed from the Ruben valve, and the open end occluded. A negative phase is not obtained with this method. A negative phase may be obtained by leaving the expired tubing in place, but a small amount of carbon dioxide rebreathing then occurs. To obtain a negative phase without carbon dioxide rebreathing, a source of compressed air must be delivered into the inlet nipple with the bag in place.

(3) The 3-way valve allows rapid changeover from a circle to a nonrebreathing system for various purposes, such as rapid oxygenation, rapid denitrogenation, rapid change in level of anesthetic in either direction, testing of soda lime when clinical signs suggest possible carbon dioxide accumulation, and rapid removal of anesthetic agents at the end of a procedure.

(4) The nonrebreathing system facilitates use of known concentrations of carbon dioxide in the inspired air; for example, to increase respiration and cerebral blood flow during induction of anesthesia, to facilitate return of spontaneous respiration after controlled respiration, and to hyperventilate with carbon dioxide (usually 5 per cent) during hypothermia, as has been suggested by some investigators.

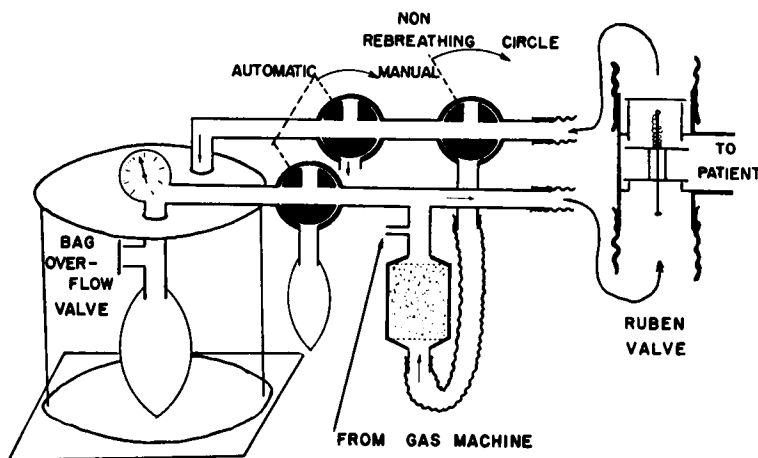


Diagram of new head piece for the Jefferson ventilator (nonrebreathing, automatic position).

CASE REPORT OF HEMATOMA IN PSOAS MUSCLE

Dr. Edmond I. Eger, II, Iowa City, Iowa, reports the following case.

A 74-year-old man was hospitalized with diagnoses of benign prostatic hypertrophy with retention, hydronephrosis, and moderate uremia. The patient also had a mild chronic cough, bilateral inguinal hernias, and advanced degenerative arthritic changes of the lumbar spine. A suprapubic cystostomy was performed under cyclopropane anesthesia, and the patient was discharged after an uneventful recovery. Six weeks later, he returned and a right inguinal hernioplasty was done under spinal anesthesia. Ten days later, a transurethral prostatectomy was performed under spinal anesthesia. Multiple attempts at lumbar puncture were made before a successful tap was obtained from an extremely lateral (4-5 cm. from the midline) approach. Anesthesia was

adequate and the procedure and postoperative course proceeded uneventfully. Ten days later, a left inguinal hernia repair was done without complications under spinal anesthesia. Tap at this time was uneventful. The patient continued to bleed from his transurethral resection wound, and eight days following his hernia repair another resection was done for hemostasis under Fluothane anesthesia. After this procedure the patient developed a spiking fever, gradual renal failure, and died ten days later. At autopsy the following pathologic changes were found: bilateral chronic and acute pyelonephritis, pneumonitis, and an organized hematoma of the right psoas muscle. The site of origin of the hematoma was not found. As shown in the illustration, the hematoma occupied much of the psoas muscle down to but not past the pelvic rim. It appeared to represent about 500 ml. of blood.



Hematoma in psoas muscle of 74-year-old man at autopsy.

CASE REPORT OF A HEXYLCAINE REACTION

Doctors G. Goldberg and D. H. Goodman of Cleveland, Ohio, present the following case report.

A white boy, aged two years and eight months, weighing 26 pounds, was admitted to the hospital for the first time to investigate recurrent pulmonary infections. Mental and physical development was adequate and general level of health was good in between respiratory infections.

Physical examination revealed no abnormalities, and the patient was in no distress. Respirations were 30 per minute, pulse 130 per minute, temperature 99 F., and the lungs were clear to percussion and auscultation. The heart showed no abnormalities. Laboratory findings: hemoglobin 11.4 Gm., and white blood cells 12,150. The diagnosis on admission was bronchiectasis.

Bronchoscopy and bronchograms were scheduled for the third day after admission. Premedication consisted of secobarbital, 0.030 Gm., and scopolamine, 0.18 mg., and was considered satisfactory. Induction consisted of open drop vinyl ether followed by open drop ethyl ether and was uneventful.

It was decided to use a 5 per cent hexylcaine (Cyclaine) spray in order to facilitate the bronchoscopy and bronchograms. Approximately eight minutes after induction, the