ness in the sole of the foot, ankle or calf. The signs are: (1) pain on dorsiflexion of the foot, (2) fever, (3) increased local heat, (4) edema and induration, (5) fullness of the superficial veins, (6) slight cyanosis.

Venograms taken after the injection of Diodrast into the small saphenous vein at the ankle may be of help in patients who have had a non-fatal pulmonary embolus, but have not shown any localizing signs of phlebitis. Venography will enable one to determine which leg is involved, and therefore on which side ligation should be performed. Venography may also reveal the extent of involvement and serve as a guide to the level for effective prophylactic ligation.

Cases are cited to show the danger of delaying immediate intervention when the signs of thrombosis first appear. Also reviewed are the histories of patients in whom ligation was performed following the occurrence of non-fatal pulmonary emboli, and who subsequently made uneventful recoveries. Further cases are cited to show that ligation of the popliteal is not satisfactory because when thrombosis exists in the deep leg veins, it frequently extends beyond the popliteal; and ligation of the popliteal leaves a sluggish stream in the remaining proximal segment. 19 references.

R. B. B.


"The term cessation of respiratory exchange is used here to refer to complete interruption of the flow of air into and out of the lungs."

"The purpose of this paper is to emphasize that cessation of respiration need not be fatal, provided it is promptly recognized, quickly investigated and judiciously treated."

"Respiratory exchange is a mechanical function and interference with it should be considered a mechanical problem and treated by mechanical means."

Types of cessation of respiratory exchange: 1. Cessation of respiratory effort without obstruction. This condition may be caused by (a) paralysis of the muscles of respiration, (b) excessive elimination of CO₂, (c) reflex inhibition as from stimulation of the carotid sinuses, (d) paralysis of the respiratory center due to intracranial lesions, overdose of drugs or acute oxygen want. The immediate treatment is establishment of efficient artificial respiration. 2. Obstruction to respiration without cessation of respiratory effort. "The abdomen expands at the expense of the chest." This type is simulated by the paradoxical "rocking boat" type of respiration due to intercostal paralysis. The causes are numerous. A few examples are cited: (a) relaxation of the muscles of the jaw may permit the tongue to fall back against the posterior wall of the pharynx, (b) foreign bodies in the throat, larynx or trachea, (c) laryngospasm caused by local or reflex stimulation, (d) tumors or edema encroaching on respiratory passage, (e) external pressure on chest or neck. The treatment is to remove the cause if possible by insertion of pharyngeal airway, suction, instrumentation or manipulation of foreign bodies; insertion of endotracheal tube, and in some cases, tracheotomy. 3. Cessation of respiratory effort and obstruction to respiration. This condition is characterized by absence of respiratory movements and failure of artificial respiration to produce respiratory exchange. The most common causes are acute oxygen want following obstruction and pharyngeal relaxation due to oxygen want which causes paralysis of respiratory center. The treatment is to remove the
obstruction and institute artificial respiration.

The most frequently used methods of artificial respiration are those of Schafer and of Silvester. Mouth to mouth or mouth to nose respiration can be used, or if an anesthetic machine is available, with the bag and mask and oxygen tank of the machine.

Stimulants such as the analeptic drugs, inhibition of carbon dioxide and intracardiac injections are of little or no value in cessation of respiration and in some cases may be dangerous.

M. F. P.


When it is necessary to remove part of the cortex of the brain in the frontal motor area, it is desirable to determine whether or not the patient will be left with aphasia. In right handed individuals the center of motor speech is located in the posterior part of the third left frontal convolution just in front of the motor center of the face. In congenitally left handed individuals, it is on the right. When the left handedness is acquired as when right handedness develops early in life, there will usually be acquired right cerebral dominance with the speech center on the right. Therefore, it would be preferable to determine beforehand where this center is in the event of an operation in this area.

Case No. 1. J. P., a male, 35 years of age, left handed, was admitted to the hospital with a history of progressive left hemiplegia of three months' duration with jacksonian convulsions. A diagnosis of brain tumor involving the right motor area was made. There were no signs of increased intracranial pressure. Operation was performed and a subcortical astrocytoma in the right premotor area was found. No attempt to remove it was made. Postoperatively there was almost complete paralysis of the left arm and leg. There was no facial weakness or aphasia. He had always been left handed, left eyed, and his father was left handed. Therefore it was assumed that his right cerebral center was dominant. The patient denied removal of the tumor and nineteen days after the first operation a trephine in the right fronto-temporal region was done over the frontal motor center for the face. With a hypodermic needle, an injection beneath the cortex of 27 cc. of ¾ per cent novocaine was made in various directions with the development of paresis of the left corner of the mouth without aphasia, therefore proving the speech center was on the left in spite of right cerebral dominance. The right cerebral hemisphere was removed including the tumor. Convalescence was uneventful and no aphasia developed. Impairment of intelligence was no different than in right-handed persons after the same operation. There were small cystic areas found at the site of novocaine injection.

Case No. 2. R. G., female, aged 27. At the age of 18 months, she had a severe illness, diagnosed as scarlet fever and followed by left hemiplegia and convulsion. At 5 years a left frontal craniotomy was done and a cyst was said to be removed. Convulsions continued, one attack daily, beginning in the right hand, which was spastic, atrophied and useless. There was slight spasticity of the right leg, but no facial asymmetry or aphasia. The patient was left handed of necessity, but there was no family history of it. It was felt that there was probably acquired right central control. Craniotomy was done on the left under local anesthesia to excise the epileptic focus. The motor area was located by exploring with faradic stimulation and