



TO A PIONEER

The historic hill in suburban Berlin where Otto Lilienthal made his pioneer glider flights is now marked by this unique monument commemorating his 1896 flights on the site. The low hill at Lichterfelds—really little more than a mound—is the mecca of aviation enthusiasts who visit Germany's capital. There, they see the great metal globe of the world resting on a marble base. The names of celebrated aviators and their historic flights are engraved on the sphere. Round-the-world flights, flights across ocean, deserts, and the poles are recorded for posterity.

those parts of the brain and nervous system which have to do with regulating the heart beat. Dr. Hyman's device is called the artificial pace-maker.

The needle is stuck into the heart close to the natural pace-maker and a weak electric shock is sent through it into the heart at regular intervals, say forty or more to the minute. Each shock starts a contraction of the heart just as the natural pace-maker would. If there is nothing permanently wrong with the heart, its own pace-maker may recover and take up its job again and the heart will go on beating naturally and the patient be restored to life.

An older method of reviving a stopped heart is by massage. The surgeon opens the chest of the apparently lifeless patient and massages the heart at the same time that oxygen is being given by artificial respiration. In reporting the heart massage method of reviving lifeless patients, Prof. O. Bruns of the University of Königsburg, Germany, credits his success with the method more to the artificial respiration with oxygen than to the heart massage.

Other methods of starting the heart make use of chemical stimulants. Chief among these is adrenalin, the potent hormone produced by the medulla or inner part of the adrenal glands. In extreme cases, this is injected directly into

the heart. Generally it is injected into a vein of a dying patient, and is carried back to the heart by the blood stream. Camphor and strychnine are other, less potent heart stimulants.

A heart may stop beating and life ebb away when there has been severe hemorrhage. In such cases, the physician will resort to blood transfusion to give the heart something to pump. In Russia a method has recently been found for using the blood of accident victims who could not be resuscitated to restore life to other patients about to die from lack of blood.

The scientists who discovered the value of counter-shock for reviving victims of electric shock hope to find a way of making it practical for use on linemen and others working with electricity who are most exposed to its dangers. Artificial respiration can be used by any layman who learns it.

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MEMORANDUM ABOUT CHRISTMAS:

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Watson Davis

WD/TR

Editor.

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