

prevent the descent of the diaphragm and interference with inspiration. In the majority of instances I have not found it necessary to hook up the tongue. If it falls backward and prevents the air from passing to the lungs, a coarse ligature may be passed through it, carried out at the side of the face-cup and retained in place with very little trouble. Sometimes, but not always, by raising the larynx or extending the head, the respirations will be facilitated. My experience would lead me to state that forced respiration by the face-mask is more readily applied in the case of lean than in corpulent individuals, that the difficulties noted above are hardly to be experienced in the former.

A case in point was that of Mrs. N——, who had taken eleven grains of morphine; artificial respiration, Sylvester method, was of no avail; four hours of respiration Fell method placed the lady out of danger. In this instance the slightest movement of the air control valve would cause the chest to heave, when the respiratory centres were almost completely paralyzed; the marked cyanosis was quickly overcome, and the most complete control of the respirations existed.

Second Question:—Is it necessary, when using the face-cup, to pry the mouth open and raise the tongue, or will the air enter in sufficient quantity through the nostrils, supposing the mouth to be closed? In the majority of cases, air will enter through the nostrils in sufficient quantity to supply the respiratory needs. If the base of the tongue occludes the glottis, a ligature passed through the tongue, as stated, will aid the inspirations. This will be seldom required.

The object of presenting this paper to the members of this Congress is that through the unquestioned results obtained by the methods first systematically and practically recommended, and by giving a clear record of the experiences which brought them about, they may be readily taken up and utilized for the benefit of the profession and humanity.

Dr. Pepper, the worthy president of this body, gave his opinion, to the effect that the reading of papers, and giving demonstrations before medical bodies, would do but little towards introducing a new practice, so that it would be generally utilized by

the profession. He urged that I would succeed better by placing into the hands of the well-known clinicians of the country a few instruments at cost price, and await the results of their use. This I will endeavor to do, as there is no evidence that instrument manufacturers will do anything with the apparatus until the clinicians generally have demonstrated that it is a necessity and a valuable addition to our armamentarium. More than this, medical opinion must be moulded so that it will be considered hazardous to attempt to save life without proper appliances being provided beforehand. A physician of Syracuse, N.Y., telephoned me to send him an instrument, that he had a lady patient in danger of dying from an over-dose of opium or morphia. I received the word two or three hours after it was sent, and forwarded by express the only instrument I had at my disposal, offering it to the party at less than the actual money outlay I had incurred in preparing it. Next day the instrument came back, with the statement that, while the physician was at the depot obtaining it, his patient died; that now, knowing where he could procure one, he would wait until he had another patient before procuring it. If the second patient comes around, he will undoubtedly have another death certificate to fill out.

The following letter, in answer to an enquiry of Dr. J. Frank, of Chicago, who is supplied with an apparatus, may be of practical value to anyone desiring to use the method: "Suppose a case of asphyxia from any cause, as opium narcosis, drowning, inhalation of gas, a case of shock from any cause in which the respiratory centres are disturbed or in which the respirations are shallow from loss of vital energy, and in which the Sylvester or any other method or artificial respiration has failed or is of no value. Use the apparatus as follows, with the parts in the following relations to each other: Face mask or cup, rubber tube connecting it with air valve, air valve, rubber tube connecting air valve with bellows.

With your patient on a table, bed or floor, as the case may be, press face-cup over the nose and mouth, and have bellows worked by an attendant at the rate of from 120 to 150 times per minute for an adult, and less for infant or youth. For