"THE CONTINUOUS INHALATION OF OXYGEN GAS IN PNEUMONIA AND IN OTHER DISEASES."*

BY ALBERT N. BLODGETT, M.D., BOSTON.

IN a paper by S. J. Meltzer, M.D., LL.D., published in the *New York Medical Record* for Oct. 19, 1918, appears an article upon "Insufflation of Oxygen in Pneumonia" (Vol. xciv., p. 689), in which Dr. Meltzer refers to a paper published by him in the *New York Medical Record* (Vol. xcii., p. 1), upon "The History and Analysis of the Methods of Resuscitation; with a Description of the Author's Pharyngeal Insufflation Apparatus for Artificial Respiration in Man."

In the same paper Dr. Meltzer also refers to an article published by him in the *Journal of the American Medical Association* (Vol. lxix., p. 1150), upon "The Therapeutic Value of Oral Rhymic Insufflation of Oxygen."

The paper appearing in the *Medical Record* of July 7, 1917, is a rather exhaustive account of the methods of treating asphyxia from early times to the present day, with an elaborate description of his apparatus for this purpose.

This apparatus, as described by Dr. Meltzer in his own words consists of: First, a bellows; second, a respiratory valve; third, a pharyngeal tube; fourth, a T-tube; fifth, a padded wooden board to be used for compressing the abdomen by means of belts. "All these ought to be kept connected and kept in readiness in a small handy bag. In addition to the described apparatus the bag ought to contain: (1) a stomach tube, (2) an appropriate tongue depressor, (3) a roll of tape, (4) a pair of scissors. Bellows, rubber tubing, etc., should be frequently examined for their efficient activity in order that the apparatus should not fail when its application is needed in emergency."

Dr. Meltzer continues: "When coming to a victim who requires immediate artificial respiration the order of procedure should be as follows: First, the application of the abdominal board in order to prevent the entrance of the insufflated air into the stomach and intestines; second, to pull out the tongue as far as possible by means of the forceps; third, to insert the pharyngeal tube of the readily connected apparatus as deep into the pharynx as possible with the flat

side of the tube on the tongue. The tongue should now be tied to the tube by means of the tape—not too tight. The tying of the tongue has two purposes: (1) It prevents the falling back of the posterior end of the tongue and of the glottis, and (2) it keeps the pharyngeal tube in place. The working of the bellows with one foot, and the moving of the ring of the aspiratory valve with the thumb of the right hand should be started immediately on tying the tongue of the pharyngeal tube.*"

If any apology is due for my temerity in addressing the *Boston Medical and Surgical Journal* upon this subject after the lapse of twenty-eight years, it may be pleaded in my excuse that the researches of Professor Meltzer in seeking information upon inhalation of oxygen in pneumonia did not lead him to know that in 1890 I published a paper in the *Boston Medical and Surgical Journal* (Vol. cxliii., p. 481) on "The Continuous Inhalation of Oxygen in Pneumonia and in Other Diseases," with a record of a case in which the oxygen was continuously given for *one hundred and six hours*, with recovery of the patient.

In the place of a battery of Ten Pieces of apparatus, such as no person less skillful than Professor Meltzer could possibly adjust (which must be obtained under his name from George Tiemann & Co., New York), I interposed only a simple wash-bottle between the tank of oxygen and the lips of the patient; the sole purpose of which is to regulate the flow of gas to the patient by the rapidity of the bubbles of oxygen from a small tube in the wash-bottle, by which I found that the rate of about one hundred bubbles in a minute of time sufficed to furnish an amount of oxygen to relieve the impending danger of suffocation, and its continued use was followed by recovery of the patient, from the impending calamity, after a period of *one hundred and six hours* of the *continuous inhalation of oxygen gas*.

"*To my mind, the apparatus which is here described is practically the most efficient one for the execution of artificial respiration in cases of emergency. It is absolutely reliable; it is very easy to handle, and is comparatively inexpensive. My statements which are here made are based upon personal observations. I have, of course, very few opportunities of testing it upon human beings. I have hardly need to state that I have no other motive for pleading for the introduction of this apparatus into medical and Samaritan practice than a scientific and humanitarian interest. The manufacturers are spending immense sums of money for advertising and popularization of their machines. Their agents have no other means of demonstrating the possible usefulness of their respiratory apparatus than by showing its action upon a rubber bag. I need not discuss here the unreliability of any of these demonstrations; neither do I need to discuss the insufficiency of the evidence derived from the testimony of some physicians. The apparatus, 'Meltzer's Pharyngeal Insufflation Apparatus for Artificial Respiratory Cases of Emergency in Man,' can be obtained from George Tiemann & Co., 107 Park Row, New York. It is not patented. Its cost is probably less than one-fifth that of the patented apparatus."

* This was the title of the former paper of 1890. It is used here because Dr. Meltzer has ignored the principal features of the whole paper.

Dr. Meltzer's instructions are precise, and are transcribed in his own words: "When coming to a victim who requires the immediate artificial respiration (supposing that the "small" handy bag is obtained from Messrs. Tiemann & Co.) the order of procedure should be as follows: First, the application of the abdominal board in order to prevent the entrance of the insufflated air into the stomach and intestines; second, to pull out the tongue as far as possible by means of the forceps; third, to insert the pharyngeal tube of the readily connected apparatus as deep into the pharynx as possible with the flat side of the tube on the tongue. The tongue should now be tied to the tube by means of the tape—not too tight. The tying of the tongue has two purposes: (1) It prevents the falling back of the posterior end of the tongue and of the glottis, and (2) it keeps the pharyngeal tube in place. The working of the bellows with one foot, and the moving of the ring of the aspiratory valve with the thumb of the right hand should be started immediately on tying the tongue to the pharyngeal tube."†

"Dr. Samuel J. Meltzer of New York said that about eight years ago he constructed a simple apparatus for intratracheal insufflation for Dr. Carrel. He had seen in many cases of his experimental dogs in which the thorax was transversely opened widely, double pneumothorax. These dogs recovered without having had infection. In the course of the last year Meltzer demonstrated to several hundred military officers anesthetized and curarized dogs with the chest wide open. The entire heart was exposed to full view. The animals were kept alive and with normal blood pressure by the method of pharyngeal insufflation. The experiment never failed. He had often demonstrated a fact of practical importance, namely, that if artificial respiration was sufficient the heart could be handled freely with impunity. Artificial respiration was very useful during anesthesia, and was indispensable in major operations upon the thoracic cavity."

Dr. Meltzer states that "he has very little opportunity to test his apparatus upon human beings," and his experiments are accompanied by such fatal mutilation of the animals used in demonstration that it may well be doubted if he could prevail upon a "human being" to undergo the peril.

† From the *Medical Record* of Nov. 16, 1918.

In the presence of an *actual* Patient, in an *actual* Sickroom, it would seem that such a degree of detail and of apparatus might well consume so much time, which is of *Supreme Importance* in so imminent peril of death, that the victim would inevitably die before the arrangements could be completed; and the melancholy ministrations of the undertaker could be finished before the apparatus for resuscitation could be brought into application to the unhappy victim.

LOSS OF FAITH AS A WOEFUL OUTCOME OF TODAY'S SPECIALISM.

BY BEVERLEY ROBINSON, M.D., NEW YORK.

SCARCELY a day passes without this sad truth being brought home to me, at the present time; and, unfortunately, the trouble does not grow less, but increases all the while. Let me give a few concrete examples.

A young woman, tired out nervously with war work, had a very painful facial neuralgia, which recurred during the night and was cured only with a nerve tonic and the use of repeated small doses of codein. Unfortunately, she was told, and, indeed, thought herself, that it was possibly due to her teeth. She consulted the dentist. He could find nothing apparently amiss, but thought it wise to have an x-ray picture taken by a radiologist. The result of this expert's investigation was to show what to him meant an abscess about the roots of two important teeth and extraction of one immediately, was advised. The other tooth, he thought, might possibly be saved by considerable refined dentistry. The patient then consulted another radiologist. He was not confident as to the proper interpretation of his radiograms and wished the patient to see another dentist. This she did, and he advised immediate extraction of both teeth. She finally consulted a third dentist. He reserved decision until he could see and determine the meaning of the radiograms. The patient has been much upset, has lost sleep and not unnaturally, since she has been informed that if she retains these diseased teeth (if they be so) she will suffer in health; and, indeed, that it has already been much and imminently jeopardized.