

But there is an impediment to artificial respiration never before pointed out. It is the obstruction of the glottis or the entrance into the windpipe, in the supine position, by the tongue falling backwards, and carrying with it the epiglottis—an event which can only be effectually remedied by adopting the *prone position*. That position is displayed by the subjoined figure.

In this position the tongue falls forward, drawing with it the epiglottis, and leaving the ingress into the windpipe *free*.

But even when the *way* is patent, there remains the question, how is respiration to be effected? The syringe or the bellows may not be at hand, and if they were, the violence used by them is apt to *tear* the delicate tissue of the lungs. The mode proposed by Leroy, of compressing the thorax by means of a bandage, and allowing its expansion by the resilience of the costal cartilages, is proved by experiment to be futile, chiefly, no doubt, from its being attempted in the supine position, with the glottis obstructed.

The one effectual mode of proceeding is this: let the patient be placed in the prone position, the head and neck being preserved in their proper place. The tongue will fall forward, and leave the entrance into the windpipe free. But this is not all; the thorax and abdomen will be *compressed* with a force equal to the weight of the body, and *expiration* will take place. Let the body be now *turned* gently on the side, (through rather more than the quarter of a circle,) and the pressure on the thorax and abdomen will be removed, and *inspiration*—effectual *inspiration*—will take place! The expiration and inspiration are augmented by timeously applying and removing alternately pressure on the spine and ribs.

Nothing can be more beautiful than this life-giving—(if life *can* be given)—this breathing process.

In one series of experiments, twenty cubic inches of air were expelled on placing a corpse in the prone position, and ten cubic inches more by making pressure on the thorax and ribs, the *same* quantities being *inhaled* on removing that pressure, and on rotating the body on its side. But I must give the experiments in detail:—

A subject was laid on the table, and pressure made on the thorax and ribs, so as to imitate the procedure of Leroy. There was no result; a little gurgling was heard in the throat, but *no inspiration* followed. The tongue had fallen backwards, and closed the glottis or aperture into the windpipe! All inspiration was prevented.

Another subject was placed in the *prone* position. The tongue having fallen *forward*, and the glottis being free, there was the *expiration* of twenty cubic inches of air, a quantity increased by ten cubic inches more on making pressure along the posterior part of the thorax and on the ribs. On removing this pressure, and turning the body through a quarter of a circle or rather more, on the side, the whole of the thirty cubic inches of air were *inspired*!

These manœuvres being repeated, ample respiration was performed?

Nay, there may be a question whether such considerable acts of respiration may not be too much.