

Successful Employment of Marshall Hall's Ready Method in the Case of an Infant born Asphyxiated. By FREDERIC D. LENTE, M. D., of Cold Spring, N. Y. (With a wood-cut.)

SINCE the enunciation of Dr. Hall's *rules* for the recovery of drowned persons and stillborn infants, a sufficient number of instances of their practical application to such cases have been afforded the public by his medical friends in Great Britain to prove their great superiority over every method previously employed. I have not as yet met with any public testimony of their efficacy on this side the water, with one exception. A remarkable case of the recovery of a patient, poisoned by laudanum, by this method, was reported to the Society of Statistical Medicine, Jan. 12, 1857, by Dr. Lewis, of New York. [See *N. Y. Journ. of Med.* for Mar. 1857, and *Am. Journ. of Med. Sci.* for April.] Regarding this as one of the most important steps in the advancement of medical science, it affords me great pleasure to be able to present a very satisfactory instance of its successful application.

Mrs. H., aged about 25, was taken in her second labour June 29th, 1857. In the previous labour, the presentation was breech; and, owing to the delay

in the latter part of the labour from subsidence of the pains, the child was stillborn and could not be resuscitated. In this, her second confinement, the presentation was natural, and the labour progressed regularly and satisfactorily, the pains being very severe towards the last, until the head passed the outlet, when, as before, the pains ceased entirely. Finding, after a few minutes' delay, that the child was struggling for breath, and that pulsation in the cord had ceased, various means were resorted to with the view of exciting uterine contraction, but without the slightest effect, although the patient was not at all exhausted. Finally, ergot was administered in a full dose, and within a few minutes after this, and perhaps fifteen or twenty from the occurrence of the last pain, a powerful contraction expelled the remainder of the child. It was perfectly asphyxiated, there being no sign of respiration, and only one or two throbs of the heart at a long interval; the surface blanched; lips livid. A large vessel of warm water was in readiness, and into this the body was immediately plunged, and cold water immediately after dashed on the surface with a view to *excite* respiration; after a repetition of this without any success, a blanket was spread on the floor, the child laid upon it in the *prone* position, and what Dr. M. Hall terms his *ready method* of imitating respiration at once resorted to, the surface of the body having been previously dried. The body was first rotated gently on the *side* and a *little further*, describing an arc of a *little more* than 90°, by which means all pressure was removed from the walls of the thorax; as a consequence, a tendency to the formation of a vacuum was produced by their elasticity, and air rushed into the lungs. Turning the body back again to the prone position, the weight of the same, aided by gentle pressure along the chest posteriorly from above downwards, expelled the air from the lungs. At the same time, from the flaccidity of the neck of the child, it was requisite, every now and then, to give an extra turn to the head so as to bring the face *downwards*, and thus allow the tongue to fall forwards and drag with it the epiglottis, thus allowing a free ingress of air to the larynx, a point especially insisted on by M. Hall in his *rules*.

At first, no sign of a natural respiration was elicited, and the infant, with its blanched, cold surface completely exposed to the air, its flaccid limbs, and livid lips, certainly presented no very encouraging appearance to the bystanders, by whom such apparently trivial efforts at resuscitation were doubtless regarded with something akin to contempt; very soon, however, as the artificial respiratory movements went regularly on, the child gasped. At first, these gasps occurred at long intervals, that is, after about every three rotations, then after two; very soon, at each change of position, and then regular respiration, but exceedingly feeble, ensued. At the same time, the livid colour of the lips gave place to a roseate hue; a feeble attempt to open the eyes was noticed. This was not until artificial respiration had been kept up for perhaps twenty-five minutes; still the artificial respiratory movements were continued, and the natural respiration continued to improve regularly but very gradually, and then gentle frictions over the chest and extremities

with dry flannel had a perceptibly good effect, causing a frown and a feeble attempt at crying. At this juncture, I concluded to try the warm bath with a view to excite the feeble circulation, and this attempt demonstrated conclusively the wisdom of Marshall Hall's imperative rule—*not to excite the circulation of the blood before establishing the respiration*, for it was evident that the blood had not been sufficiently aerated, as was evinced by the respiratory movements becoming slower and feebler, and the colour of the lips changing again to a purplish hue; artificial respiration was immediately re-established with almost immediate effect; the child feebly opened its eyelids, and the respiration became more regular. After about three-quarters of an hour, or perhaps longer, from the commencement of the operation, the infant was wrapped in a warm blanket, care being taken to leave the face and upper part of the chest freely exposed, and not to overheat the surface—also to keep the child on its side, lest, in its extremely feeble condition, the tongue should fall backward, and interfere with the full establishment of respiration. Nothing more was done, except to watch the infant closely for the next two hours, and occasionally to use gentle friction over the body with flannel. It was not considered prudent to dress the child until after the lapse of six hours, at which time it cried strongly and appeared as strong as an ordinary infant. The child is now, ten days after birth, perfectly well and strong.

The above case is given with considerable detail for the reason that Dr. Hall's rules and observations,¹ so much commented on recently in the English

[¹ The accompanying wood-cut illustrates Dr. M. Hall's method:—



His directions are as follow:—

“Place the patient on his face, his arms under his head, that the tongue may fall forward and leave the entrance into the windpipe free, and that any fluids may flow out of the mouth; then

1. Turn the body gradually but completely on the *side*, and a little more, and then again on the face, alternately (to induce *inspiration* and *expiration*).

2. When replaced, apply pressure along the back and ribs, and then remove it (to induce further *expiration* and *inspiration*), and proceed as before.

3. Let these measures be repeated gently, deliberately, but efficiently and perseveringly, *sixteen times* in the minute *only*.—EDITOR.]

journals, have received but little of that attention in our journals which their novelty and importance demand.

Note.—Dr. Hall, at the suggestion of a friend, has called his the *ready method*. Would not the *physiological method* be a more scientific, and equally appropriate term, in contradistinction to the unscientific and empirical methods hitherto employed and still in vogue?