

A NURSE THAT WILL NEVER BE CARELESS.

An English inventor has patented what is described as a "thermostatic nurse." Nursemaids may think this a rather high sounding name, and possibly some will feel it an imputation on their class, but the title very well expresses the character of the invention. It is an artificially warmed and thoroughly ventilated box, in which a crib or hamper with a baby in it can be kept at an even temperature, varying only about one degree from the standard decided upon, the air being slightly moistened, and a glass cover permitting all the personal watchfulness that may be desired.

The device is shown in the accompanying engraving, the case being of wood, divided horizontally into upper and lower compartments, A and B, by a shallow inclosed tank of water, C. Above the water tank, and supported on slips of wood, D D, is a cradle for the reception of the infant, which lies under a glass window, E, hinged at the back, and connected with a lever plate, F, the latter also connecting with a thermometer and an alarm bell. Through the hole, M, at the bottom fresh air is regularly admitted, passing through a cap, P, and two layers of coarse canvas, N, the latter dipping into a metal water tray, O, to keep the canvas through which the air passes always moist. To the right is a gas flame, the heat from which passes through a flue, R R, shaped like the letter U, so as to twice traverse the length of the water tank, to heat the water. For the regulation of the temperature a metallic capsule, S, containing a liquid which boils at 90°, is fixed near the head of the cradle, and connected with a light lever, V, pivoted to the lever plate, F. From the free end of this lever hangs a little damper, W, which regulates the heat to be supplied by the gas flame or lamp. If a higher or lower temperature be desired, the device can easily be adjusted therefor. This apparatus differs from the French device for a similar purpose, which was fully described in SCIENTIFIC AMERICAN SUPPLEMENT, No. 434, in that the regulation of the temperature here is entirely automatic. The use of this "thermostatic nurse" and the so-called French "baby incubator" of Dr. Tarnier has been highly recommended by hospital managers, as conducing largely to the saving of life among infants that must be raised in public institutions. Perfect ventilation and even temperature are especially important for infants of low vitality, and by means of such apparatus it is said that in 145 cases at a Paris hospital, where the infants weighed at their birth only about four pounds, the average mortality was reduced from 66 to 38 per cent.

POST MORTEM ATTITUDES.

Dr. Brown-Sequard has recently published an interesting paper* upon the post mortem preservation of the attitude that the subject presented at the very moment life ceased. In giving these facts the principal object of the author was to seek the cause of the phenomenon; but he arrived at the conclusion that a solution of the question cannot be reached in the present state of science.

If this delicate problem embarrasses the learned physiologist, I certainly have not the pretension to offer in this place a satisfactory solution. My only object is to point out a few facts of a special nature that Dr. Brown-Sequard did not allude to. As these are capable of throwing light upon certain points of the question, and of thus helping its solution, I have thought it worth while to make them known.

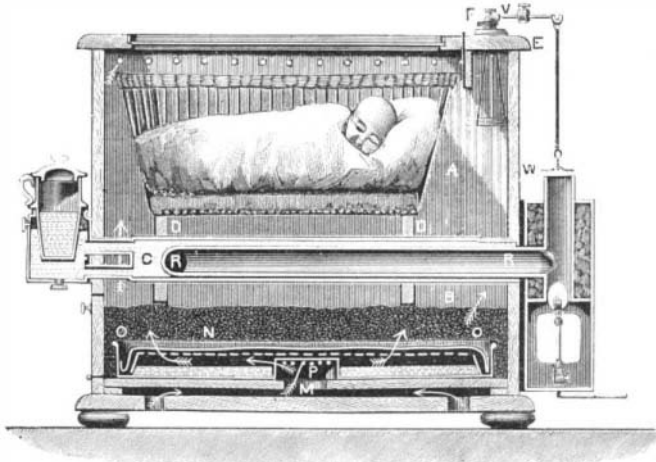
In order that this phenomenon of the preservation of the last attitude may manifest itself, a few peculiar conditions are necessary, the principal of which appears to be a violent, instantaneous, or quick death. But such a condition very often occurs without a preservation of the attitude being observed; and, on another hand, cases are likewise cited where death seems not to have been instantaneous, nor even very quick (relatively at least), such as the case of a wound in the thigh. There has also been invoked, as an active cause, the moral influence exerted upon the subject in cases where death was not instantaneous, or at least in those in which the subject has had a knowledge or quick perception of the danger that menaced him. Without any explanation of the immediate cause—the starting point of this instantaneous action of the nervous system—the thing itself has been designated as *sideration*. Now, in pointing out the causes of death that have given rise to a preservation of the attitude, Dr. Brown-Sequard has omitted to mention the cases in which this expression of *sideration* can be applied in all its fullness, properly and not

figuratively, and that is in those cases in which death has been caused by lightning.

Such cases are quite numerous, and some details have been ascertained that may throw a light upon the question. I shall, in the first place, cite the most remarkable observations.

1. One of the oldest facts is related by J. B. Cardan, who published a work upon lightning at Lyons, in 1633. Eight farm hands had taken refuge under an oak, in order to protect themselves from a storm, and to eat their lunch. A peal of thunder was heard, and the eight persons, struck dead by lightning, remained in the position that they were occupying. One of them was holding a glass, and another was putting some bread into his mouth, without any modification of the facial expression having occurred.

2. The preceding fact left some doubts, and there has



THE THERMOSTATIC NURSE.

been a disposition to believe it an exaggeration, but another and identical one was afterward reported by a Protestant pastor, Butler, who was a witness of it. On the 27th of July, 1691, at Everdon, ten harvestmen took refuge under a hedge upon the approach of a storm. Soon afterward a thunderbolt fell and killed four of them, who remained immovable, and as if petrified, in the very attitude that they had at the time. One was holding between his fingers the pinch of snuff that he was about taking. Another was holding on his knees a dead dog which he was caressing with one hand and offering a piece of bread to with the other. A third was sitting with his eyes wide open and his head turned in the direction of the storm.

3. Abbe Richard relates that the proctor of the Seminary of Troyes was returning upon horseback, when he was struck by lightning. A brother, who was following him, not having perceived it, thought he was asleep because he saw him tottering. Upon trying to awaken him he was found to be dead.



DEATH BY LIGHTNING.

4. Another and analogous case is likewise related in the funeral annals of lightning. A priest was struck while upon horseback, without the animal being injured. The latter continued his accustomed route, and reached home with the dead horseman, who still preserved his attitude. The distance thus traversed was about two leagues.

5. On the 9th of May, 1781, at about three o'clock, the lightning struck the door of the chapel of the Commandery of St. John, near which a woman and three children had taken refuge. The woman, who was seated in front, was suffocated without changing attitude, as was also one of the children.

6. On the 14th of August, 1793, a man, surprised by a

storm in the environs of Dover, took refuge with four horses in a thicket. A thunderbolt having fallen, the four horses and the man were killed, with the peculiarity that the latter remained seated.

7. On Sunday, July 11, 1819, the church of Chateaufort (Lower Alps) was struck by lightning during divine service. A large number of persons was struck (82 wounded and 9 killed). The peculiarity to be pointed out is that all the dogs that were in the church were found dead in the attitudes that they previously had.

8. At Vic-sur-Aisne in 1838, three soldiers, in the midst of a violent storm, took shelter under a linden, when, by the same stroke of lightning, all were instantaneously killed. Moreover, all three remained standing in their original position, just as if the electric fluid had not touched them. Their clothing was intact. After the storm, some passers-by who saw them, having spoken to them without getting any answer, approached and touched them, when they all fell into a heap of ashes.

9. In the month of July, 1845, four inhabitants of Heilz-le-Maurupt, near Vitry-le-Francois, took refuge, three of them under a poplar and one of them under a willow. Soon afterward, the one who was under the willow, and leaning against it, was struck by lightning. A bright flame was issuing from his clothing, but he did not appear to see it. "You are burning! Don't you see that you are burning?" cried his companions (see engraving). Upon running to him they found he was a corpse.

10. An animal forms the subject of this observation, which was made after a winter storm, in January, near Clermont. A goat was struck by lightning and immediately killed. It was found standing upon its hind legs still holding a green branch in its mouth.

11. A young woman, the wife of a miner of Ricamarie, had gone to visit her family at Saint Romain-l'Atheux, taking with her her four months old child.

It was on July 16, 1866, and she was alone in the house during a storm. When her parents returned from the field a sad spectacle awaited them, for the young woman had been killed by lightning. She was found on her knees in a corner of the room, with her face concealed in her hands. She bore no trace of a wound. The child, which was lying on the bed in the room, had been but slightly touched by the electric fluid.

12. I have related the preceding observations in chronological order, but I terminate with one, nevertheless, that should have come first. It is narrated by Quintus Curtius (lib. viii., cap. iv.). Alexander the Great was traversing Asia and spreading ruin on his way. When he reached the region now called Bokhara, his army was assailed by a frightful cyclone. This terrible tempest carried off nearly a thousand men—soldiers, sutlers, or valets. It is said that some of these were found leaning against the trunks of trees, and seeming to be still alive and talking with each other, in the same situation in which death had overtaken them.

The observations which precede seem to us to furnish some useful information in regard to some points of the question. Thus a perception of danger is not necessary to explain the influence exerted upon the subject. The case of the soldier observed at Beaumont, near Sedan, seems to be demonstrative. He was not conscious of danger, by reason of the quick and unforeseen action of the bullet. This cause most certainly cannot be invoked in case of death through lightning. It is perfectly demonstrated by numerous observations that the subjects thus struck have not and cannot have any apprehension of their imminent danger. The person who is struck by lightning not only does not hear the noise of the thunder, the propagation of which is relatively slow, but he has not even any perception, any warning, of the flash, whose rapidity is proverbial. Death is instantaneous, and the subject has not experienced the moral influence that results from a perception of danger. We have

particularly related the cases that comprise animals (obs. 7 and 10). These could not have had any such apprehension. It is remarkable to see that *all* the dogs were struck, and that all preserved their attitude in the occurrence at Chateaufort, while the number of human victims was proportionally much less. None of these latter, moreover, preserved the attitude that he had at the moment of death. In obs. 6 a man preserves his position and remains seated near four dead horses that did not maintain *their* attitude. In obs. 1 we see that *all* the individuals exposed to the action were killed, and *all* (to the number of eight) preserved their attitude. In the second case four out of ten were struck, and the six others do not appear to have been influenced by

* SCIENTIFIC AMERICAN, page 23, ante.