

called the epiglottis, which acts as a tireless, watchful sentinel to guard what we may almost call the portal of life from the intrusion of any foreign invader by instantly but temporarily closing the trachea. This singular structure has been compared to the lid of a pitcher, shall we not *also* say a *living lid*, opening and closing at command of the nerve centres. The supreme importance of this beautiful piece of mechanism, will be the more brought home to us when we reflect, that all the food we swallow passes over the larynx to the gullet or oesophagus, and that the act of deglutition temporarily closes the laryngeal valve, and were it not for this merciful provision our earthly careers would terminate at our first meal. And we all know what it means to have even a crumb "go the wrong way" that is into the wind-pipe. And here I must remark that the glottis has a very important influence upon infantile life, for from causes not always to be accounted for, it is liable to a nervous laryngeal affection called spasm of the glottis, which leads to a closing of the wind-pipe and very speedy death from suffocation, and this terrible blow often falls upon the finest and healthiest infants. This calamity does not often fall within the experience of Obstetric Nurses, but they see something analogous to it in the spasmodic crying of young infants, "holding their breath," as it is called, and the dusky hue of the face shows that the trachea is *temporarily* closed, and unless an inspiratory act were promptly excited, suffocation would ensue. When an infant has an attack of this kind raise him up, turn him face downwards over your arm, and administer a sharp "slap" on his back to make him cry, when all danger is over.

From the larynx to the root of the trachea is the next stage of the journey, and the air reaches the right and left bronchi that we may almost call "air mains." The *right*, about an inch long, takes a course almost at right angles to the trachea and enters the upper part of the *right* lung; whilst the *left*, *two* inches in length and smaller, passes between the aorta and enters the *left* lung. Upon entering the lungs they divide into two branches, and each of these divides and sub-divides to their ultimate destination the air cells of the lungs.

In health, the whole of this wondrous tubular system is intact and pervious to the air to its minutest ramifications, but any obstruction to the passage of the air to or from the lungs gives rise to discomfort, pain, danger, and in extreme cases—death.

But these air tubes are not merely *tubes* for the mechanical conveyance of the air to the lungs, they have a life of their own and a special function to fulfil, for, like all the open cavities of the body, they are lined by a highly vascular and sensitive membrane, called mucous membrane, which in health secretes a clear bland fluid that soothes, moistens, and cleanses the air passages and bronchial tubes, and this last becomes patent to us in the sooty particles from the atmosphere caught by the mucus and expelled in the phlegm.

In catarrhal affections of the respiratory tract, an increased secretion of viscid mucus takes place, and profuse expectoration of a tenacious glairy phlegm; the inflammation takes a downward course towards the lungs, and the lower it spreads the more dangerous does it become. When the larger bronchial tubes are attacked, it is called bronchitis; when the ultimate air cells are reached and blocked with mucus, it is termed capillary bronchitis, and, as a rule, death ensues from pulmonary suffocation or collapse.

Let us now thoughtfully consider *why* bronchitis is so extremely dangerous in *early* infant life. At birth, the circulatory system is in a state of intense activity the heart beating 140 to 150 times per minute, and the respirations proportionately rapid, 93 to 40 per minute. But this extreme rapidity gradually lessens and the normal heart's beats (pulse) in the first month of infant life are about 120 per minute, the respiration 20 to 39. In very young infants, the breathing is very irregular; the younger the infant the *less* the chest dilates, the more freely do the muscles of the abdominal walls and diaphragm act; hence the respiration is said to be *abdominal*.

The respirations are quick but feeble, and in infancy the consumption of oxygen is smaller, and the power of maintaining animal heat less than at later periods. The temperature in infancy is 95°, being therefore lower than in adult life. A consideration of these facts shows us how the force and rapidity of the circulatory system in early infancy tends to spread inflammation affecting the respiratory tract. But there is something more than this to be learned from these physiological conditions of infancy. They are not to be regarded as mere data culled from text books to be read and forgotten, but facts of the deepest significance and value to every mother in the land, and every woman engaged in the care of young infants; a knowledge of them will guide us in every duty as regards the food, the clothing, the slumber, the tender care of the newly-born.

(To be continued.)

AN EXCELLENT CHRISTMAS PLUM PUDDING.—Take three-quarters of a pound of flour, two large tea-spoonfuls of Borwick's Gold Medal Baking Powder, two ounces of bread crumbs, one and a half pounds of suet, two pounds of raisins, one pound of currants, ten ounces of sugar, two ounces of almonds, one pound of mixed candied peel, salt and spice to taste, mix ingredients well together, and add six eggs well beaten, and three-quarters of a pint of milk, divide in two and boil eight hours. This receipt is unequalled.

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