carbonic acid, which irritates the respiratory centre and causes the rapid breathing. This contraction is succeeded by marked dilatation, and in this manner the medulla is supra-saturated with oxygen, which brings about slower respiration and finally a stop, to be again followed by contraction and its resulting quickened breathing.

Rosenbach contends that it is due to a periodically recurring debility of the respiratory centre, that the cause is to be found in the nerve centres and is entirely independent of the circula-As instances of similar kind, he refers to a periodically tion. recurring debility of the vaso-motor centre, clinically exemplified in alternate paleness and redness. He also instances certain pulse abnormalities as illustrative of a like affection in another nerve centre, viz., "the vagus centre." The breathing period he compares, in Cheyne-Stokes phenomenon, to the normal respiration, and the pause he compares to the perceptible pause between insplration and expiration. He, in fact, sees in this phenomenon only a very exaggerated degree of the normal process of breathing. As another analogous condition he instances the state of the pupil and the activity of the brain. When the brain is tired or exhausted, sleep is induced, and during sleep the pupils are contracted. In the moment of waking the brain is active and the pupils dilated. He compares the condition of the pupils in sleep to the pause in the Cheyne-Stokes phenome-In both instances the condition of the central nervous non. system is the same, markedly diminished irritability.

Rosenbach's views may be briefly stated as follows: Under the influence of certain anomalies of brain nutrition (in cerebral diseases, or the lungs or circulation) there arises in the brain in general or in some of its centres, especially the respiratory centre, localized disturbances which depress the normal activity of the affected part, and through this there arises remissions or complete intermissions in the activity of the centre (pause in breathing). So soon as the centres have a short rest (pause) the activity returns, an increased activity (increased breathing), but this increased duty or work soon again tires the centre, and then we have a repetition of the same abnormal action. These