

produced we have, at present, no knowledge. The discovery of certain pathological forms in the sputa, such as Leydin's crystals and Curschman's spiral fibres, although interesting, throws no light on the subject, and I do not think these can be regarded as any other than faulty secretions, the result of deranged innervation. There have been numerous classifications made of the disease, but it appears to me that they can all be included under three heads, according to the apparent provoking cause, viz.: (1) Irritation of the terminal filaments of the vagus nerve, either in the respiratory passages, particularly the nasal, or in the digestive tract, the stomach probably chiefly; (2) irritation of the main trunk of the nerve itself; (3) irritation of its origin in the brain. Of these three causes, the first two are decidedly the most common, and are frequently combined, as is illustrated by some of the cases I have recorded. The last, or purely nervous form, in which the paroxysm occurs independently of any local irritation, is probably rare, and, I am inclined to believe, will be found to be more uncommon the more thoroughly we are able to investigate the conditions in each of our patients under which an attack occurs. (I may here remark that I am leaving out of consideration altogether those cases of so-called asthma in which puerile breathing is present, indicating an absence of bronchial spasm, as in the "hæmic asthma" of some writers, and cardiac asthma. These, which are commonly due to some fault in the blood itself, or its circulation, on account of which it is unable to absorb sufficient oxygen for the requirements of the system, should not be regarded as asthma at all, but are better described as dyspnoea.) Although, as I have said, the purely nervous cases of asthma are, I believe, rare, yet there is probably in all cases a faulty nervous constitution, for in no other way can we account for certain causes producing attacks in some individuals that to most of us are innocuous; e.g., nasal polypi and vegetations frequently exist without the subjects being asthmatic, and exposure to nasal irritants, such as ipecacuanha and various odors, though sufficiently strong to excite violent sneezing, will yet fail to excite asthma, except in the few. The hereditary character of the disease and its frequent association with neurotic affections, such as neuralgia, hysteria, etc., in other members of the same family, show this. One of the most remarkable and perplexing characteristics of the affection also, its sudden and unaccounted origin at various ages, and persistence thereafter, can hardly be explained in any other way. Almost equally inexplicable is sometimes the suddenness and completeness with which the disease sometimes ceases, as in the following case:

Mrs. S., æt. 62. First attack of asthma when about thirty years of age, while pregnant; after that had frequent and severe attacks, often lasting, with exacerbations and remissions, for several days, occurring especially on