

Selected Articles.

DISEASES OF THE LUNGS.

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COUGH.—This is a prominent symptom of disease of respiratory apparatus. The chief object of the act is the expulsion of pathologic products which, if allowed to accumulate, would result primarily in dyspnea to be followed by asphyxia. For this reason, the use of *narcotics* which render the respiratory mucosa anesthetic, are dangerous when the secretions are abundant. The probable direct cause of cough is irritation of the fibres of the pneumogastric nerve or its branches. A *cough center* is presumed to exist in the floor of the fourth ventricle. The mechanism of cough is briefly as follows; Following closing of the glottis and a deep inspiration, the intra-thoracic pressure by means of the auxillary muscles of expiration is augmented; then, with sudden opening of the glottis, an audible outrush of air ensues which in turn brings with it, the substances forming the sputa. Account must also be taken of the *bronchial musculature*, which surrounds the entire bronchial tree even to its ultimate ramifications. Inasmuch as this musculature is largely concerned in the genesis of phenomena associated with pulmonary neuroses, a few words concerning it will be apposite. Irritation of the vagus branches will bring these smooth muscular fibres to contraction, and after-section of the vagus in the dog, the bronchioles on that side become conspicuously relaxed. These fibres play an important rôle in coughing and expelling adventitious products resident in the bronchial tree. They confer on the bronchioles a distinct movement, such as we observe in other canals like the intestines, esophagus, etc. What has been denominated the *lung tone* is practically nothing more than the normal integrity of these muscular fibres. Under the influence of cutaneous irritation, as we will subsequently show in the study of the lung reflex, these fibres functionate as constrictor and dilator muscles. In the young, in whom the use of the muscles is unknown and for that matter in many adults, for coughing is in itself an art which must be learned, no expectorated material is brought to light. In the old or enfeebled, the musculature concerned in the expulsion of matter is deprived