## The Combat Against Tuberculosis\*

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HE various addresses which have been given during the course of this Tuberculosis Exposition have covered many of the aspects of the disease, its causation, dissemination and the treatment of it in its various forms.

When asked to outline the work which we are doing in Canada to combat the disease, I thought it might be of interest to incorporate as well a few notes as to the knowledge of the disease possessed by physicians centuries ago, and at the same time to make some mention of the work which has been done in other countries in the development of the present day crusade against tuberculosis in its various forms.

At no time in the history of the world has there been as much done in the treatment of those suffering with the various forms of consumption, nor has there ever been as much public interest taken in the disease.

We know to-day that pulmonary tuberculosis is curable, particularly in its earlier stages, and though this has only been accepted generally within a very few years, we have but to pick up the writings of Hippocrates (460 B.C. to 377 B.C.) to find that he taught his students that if patients with consumption were treated from the first they will get well. The father of medicine had a wonderful knowledge of the disease. He described the form of chest in phthisis and gave us our first ideas on judicious exercise and the rest cure.

## HISTORY OF TUBERCULOSIS

Isocrates, a contemporary of Hippocrates, taught that consumption was contagious, but this expressed belief of his was not generally accepted.

Aretæus, who lived 250 years before Christ, prescribed for his patients sea voyages, moderate exercise and friction. He also laid stress on a generous milk diet.

Pliny (72-22 B.C.) taught the great value of sunshine and fresh air. He sent his patients into the pine forests. One of his most noted maxims was "Where sunshine enters, disease departs."

Celsus (30 B.C.-50 A.D.) advised for his patients a change of air and sent his patients to the country or on sea voyages.

Galen too, who lived from 131-200 A.D., believed that impure air was an etiological factor and taught that the disease was contagious. He sent his patients to the higher altitudes that they might breathe pure fresh air.

The first records of cured cases are perhaps found in the writings of Avicenna, a physician of the Arabian school who flourished 980-1037 A.D. He, too, believed in contagion and sent many of his patients to the pure air of the mountains.

The first accurate description of the tubercles found in the lungs in phthisis, we find in the writings of Franciscus Sylvius, 1614-1672, and in 1672 Gideon Harvey published a work with most excellent plates illustrating them.

Scrofula, which was later recognized as a form of tuberculosis, received great attention from physicians in the seventeenth century. It was known as the King's Rvil, and the belief was general that the disease would be relieved or cured could the patient be touched by a king. John Brown, in one of his writings, records that in twenty-two years (from 1660-1682) 92,107 persons were touched by the king for this complaint.

Sydenham (1624-1689), the father of English medicine, advised riding in the treatment of consumption. This was his favorite treatment for many other diseases. He records a number of cures which he thoroughly believes were due to horseback exercise.

Richard Morton in 1689 declared the identity of scrofula and consumption and was the first English writer to lay stress upon contagion.

Great advances in the recognition of the disease were made by the Paris physicians Laennec and Louis. Laennec it was who first taught the use of the stethoscope, and through his careful researches diagnosis was simplified. His work on auscultation, first published in 1819, is a classic. The first accurate description of the histology of tubercle was given by an English physician, Addison, in 1845, in a communication to Guy's Physical Society.

## NOT SUPPOSED TO BE COMMUNICABLE

During these earlier years there was no general belief in the communicability of the disease. Kortuum, in 1789, tried inoculation experiments by rubbing tubercular matter on the unbroken skin, but it was unsuccessful. That the disease is communicable was first proven by the brilliant researches of Villemin, who in 1865 published a report of his experiments. His conclusions were not generally accepted, though they were incontrovertible. Koch however, in 1882, compelled the world to acknowledge that tuberculosis was a specific infectious disease, when he made his memorable communication announcing the discovery of the tubercle bacillus, and showed that in all cases it was the causative factor. He showed that this bacillus could always be found in the sputum of

<sup>\*</sup>Extracted from an address given at Tuberculosis Exhibition, Toronto, Aug. 29th, 1906.