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THE LYMPH CIRCULATION IN MODERN MEDICINE.

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Owing to the illness of Dr. James Stewart, of Montreal, the address in Medicine was pressed upon me by your president and committee. In reluctantly accepting the honour, I recognized not only the short interval for preparation, but my inability to give such a popular address as the occasion calls for. In relying on your charity to-day, I accept the investment of this office, not as an honour, but as a duty.

On account of the time left, I must of necessity select a subject with which I have already been familiar. In announcing it as "The Lymph Circulation in Modern Medicine," one feels that we are treading upon a new continent of thought. It is a subject that is in intimate relation with every branch of medicine and surgery. The unsolved problems of physiology, pathology and therapeutics must find their final solution here. The final contributions in these three realms must be cytological, by painstaking study of the cellular elements. As cells of their own vital activity feed and oxidize themselves from the adjacent lymph stream, it must be basic to every problem in medcine how lymph is kept nutritious, and how it rids itself of its waste products. The tissue juice or lymph is not only the food of cells, but their sewerage system as well.

Two hundred and fifty years ago, Rudbeck discovered the general lymphatics, and gave the first conception of the irrigation theory of tissue nutrition. Hunter believed in the theory of tissue suction; Johannes Müller ascribed lymph to the vital activities of the living cells of the body.[1]

In 1850 Ludwig propounded the theory, which bears his name, that lymph was renewed by filtration and osmosis. Twelve years ago, R. Heidenhain startled the physiological world with experimental evidence, which he claimed was fatal to Ludwig's theory. He experimented with certain substances, which altered in quantity or quality the

[1] Address in Medicine, Canadian Medical Association, 1903.