

or as they compose tissues and organs, may not yet be as clearly grasped as could be desired ; but such new and unexpected light has been shed on the working of the body, its metabolism, by the removal of certain organs, in whole or in part, that changes have been, in consequence, made in theory and practice scarcely less remarkable than such as have grown out of the investigation of microbes in all the varied parts they play in disease. As a result, the understanding of the processes of life as a whole has been, or may be made, clearer ; in other words, there has been a remarkable advance in physiology. Several organs, the function of which was believed to be known, have been lifted into greater prominence by having new functions attributed to them, or at least it has become clear that we must no longer believe that their use in the economy is fully explained by the functions till lately assigned to them.

Our difficulties regarding ductless glands are at all events disappearing, if they have not been wholly removed ; and, as often happens, the indirect benefit is perhaps greater than the direct, for by these recent advances we are led to see how crude have been many of the explanations offered to the student of physiology up to the present time.

I have chosen the above subject on which to engage your attention for a short time because, in the first place and chiefly, I regard these changes of view of so much importance as likely to give rise to many practical results, sooner or later, of a character quite beyond our powers to define just now ; and, in the next place, because the thyroid gland is attracting deservedly so much attention at present in practical therapeutics ; and its study is likely to give rise to similar investigations of other organs whose function has been obscure, and, as hinted before, may lead to still greater widening of our views of the scope of action of organs to which we have long attributed only certain functions ; and, finally, because I have felt that I would be best entitled to claim your attention to what I had myself made the subject of some investigation, selecting it for the present occasion rather than some scientific subject whose practical bearings were less evident ; while I hoped that the practical demonstrations I might be able to give may be more impressive and illustrate more clearly the importance of this gland in the animal economy than any mere descriptions possibly can.

So many workers in different lands have now reported their results, and so many theories have been held as to the function of the thyroid gland, that the time would fail me to refer to them all, or to any of them, at great length.

From the notion that the thyroid gland had no function whatever, or that it was a mere mechanical diverticulum or reservoir for blood, down to the more definite and narrow view that it is concerned with producing and