

nized that there is a special bundle of muscular fibres which appear to be the means of transmission of the wave of contraction from the auricle to the ventricle; and that if this bundle is diseased, an interference with the transmission of the wave may take place; and either the ventricle will fail to contract when it normally should, or it will contract independently of the stimulus from the auricle, and therefore irregularly.

Many views have at different times been held as to the movements of the stomach and the disposal and discharge of its contents. Ocular demonstration was impossible; but now by the aid of X-rays in conjunction with the administration of the salts of bismuth by the mouth, much more accurate ideas can be formed of the course of the gastric contents, and the time they spend in the different parts of the stomach. In a similar way by repeated observations of the X-ray shadow cast by the bismuth salt lining the intestine, information can be gained as to the progress of the contents of this viscus.

Of another kind are the researches by which Professor Starling demonstrated that the development of the mammary glands during gestation in animals was due to chemical substances absorbed from the foetus and not therefore of influences of a purely nervous origin, as was formerly thought.

These illustrations, which might be abundantly increased will suffice to show what large emendations and corrections are being made in our knowledge of physiology, nearly all of which must have some bearing upon our conception of what takes place when the organs are diseased.

When we come to pathology, the nature of disease, nobody could for a moment suppose that any progress can be made without further research. Think of what was known of disease fifty years ago, as compared with what is known now; what additions to our knowledge have been made in this period by the whole science of bacteriology, and all that comes out of it—antiseptic methods of treatment and prevention, the doctrine of immunity, and vaccine methods, and elaborate microscopic methods, by which details of structure in blood, lymph, and tissue formerly undreamed of are now recognized.