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heart in valvular disease varies much, and, secondly, that the earliest evidences of a broken compensation were to be found in the lungs, especially in their most dependent portions.

Thoracic Aneurism. The shadows on the screen are very varied, depending on the size and location of the aneurism. An accurate diagnosis of a small aneurism is always difficult and sometimes impossible by our ordinary methods. A careful X-ray examination will show a well defined dark area above the heart, whose pulsations are synchronous with those of the heart itself. If the sac is filled with clot there may be no pulsation, clotted blood, however, casts a shadow much darker than normal blood. The aneurism if large will throw a shadow on both sides of the sternum, if small and on the descending arch on the left side, and if small and on the ascending aorta on the right of the sternum.

Lungs and Pleuræ.—In some cases the X-ray may add nothing to the information obtained by our ordinary methods; but the ability to make the usual physical examination of the chest and then to look at the problem by means of an X-ray examination, and thus consider the question anew, confirming or disproving the first opinion, is a gain that no physician, who is familiar with diseases of the chest, or who has taken the trouble to acquaint himself with the possibilities of the ray, will for a moment question.

Pleuritic effusions, like pericardial effusions, cast a dark shadow on the screen or plate and therefore with the lung give us the necessary contrasts. This applies equally to the serofibrinous and purulent exudates. Movement of the patient shows a disturbance of the surface of the fluid except of course in encysted pleurisies.

In pneumonia the areas of consolidation can be accurately determined. The intensity of the shadow depends on the degree of consolidation. In some cases the absorption of rays is complete. The excursion of the diaphragm is limited on the affected side, owing eitner to hepatization or to pleuritic adhesions.