

discovered. Differences in quality, such as softness, or roughness, are readily recognized. The increased length and loudness in one part is accurately contrasted with the healthy condition of another part. In cases where the inspiration has been very full in one place, in order to compensate for deficiency in another place, and where the respiration was long and coarse in the deficient part, I have heard the inspiratory sound only in one ear, and the expiratory sound in the other ear. The sounds were respectively restricted to the two parts, and they alternated in a very marked manner. One part has remained silent, while the other has been heard to sound, and this has been silenced when the other has awoke the ear.

This diagram represents the sounds occurring alternately in two sides of the chest in a consumptive patient. The dark spots represent the sounds.

Healthy right side of Chest.

Unhealthy left side of Chest.

<i>Inspir I.</i>	■		<i>Inspir I.</i>
<i>Exspir I.</i>		■	<i>Exspir I.</i>
<i>Inspir II.</i>	■		<i>Inspir II.</i>
<i>Exspir II.</i>		■	<i>Exspir II.</i>

The influence which the acts of respiration exert in heightening and lower-murmurings in veins, say of the neck, in persons affected with a thin and watery condition of the blood, is well exhibited by placing one arm of the stethophone on the chest, and the other upon the veins.

When the respiration is alike in character, but decidedly louder in one part than in another, the sound in the weak side is lost. While this loss proves, in a very emphatic manner, the important fact of a deficiency, it of course, deprives us for a time, of the opportunity of judging of the quality of the deficient respiration, but this is readily obviated by removing the cup of the instrument from the full respiring part, and then the deficient respiration is immediately heard through the other cup. Thus while the two sounds being of like character, and one being more intense than the other, can be heard only in one ear at the same time, an admirable opportunity is obtained for contrasting the extent, and some of the qualities, of the sounds of the two parts, by placing the cups alternately and rapidly upon the two spots respectively. Vocal extussive resonance in two parts of the thorax, is well contrasted with the two tubes employed at once, or in immediate succession.

The sounds of the two sides of the heart, and of the valves of the two great arteries proceeding from that organ, are, by means of the stethophone, very advantageously dealt with. By placing it over the two sides of the heart, or the origin of the two arteries, we ascertain the character and loudness of the sounds of these parts. One cup being placed over the aorta, and the other over the pulmonary artery, if the sounds they collect differ in character, one sound is heard in one ear, and another in the other ear. We may have at the same moment an aortic murmur and a healthy pulmonary artery sound, one sound in one ear, and another sound in the other ear. But when it is desired to listen to each sound simply and in succession, the instrument will still be available, for