THE PHARYNX AND MOUTH IN THEIR RELATION TO SPEECH.

In my last lecture I told you about a man with a harmonium reed in his throat, in place of vocal cords. Now, ordinarily, there is vast deal of difference between the sound of a harmonium, and the sound of the human voice, and yet in this case the reed produced the effect of a human voice when the man spoke. To the ear, therefore, it made all the difference in the world, whether the reed was vibrated outside or inside the man's throat. Now, we have no reason to suppose that the thorax and lungs operated in any different way from the wind chest of a harmonium. They simply supplied air to set the reed in vibration. The difference of effect, therefore, must have been due to the parts above the reed. In other words, the pharynx, mouth, etc., were the agencies involved in changing the harmonium effect into a human voice. Consider for a moment, the nature of the difference between the sound of a harmonium reed and a sound of similar pitch sung by the voice. The same note may be played upon a piano, a violin, a flute, or a trumpet, and yet each sound has an individuality of its own. We can tell by the ear, at once, which instrument is used, although all the notes may be alike in pitch, and equally loud. The sounds differ from one another in "character," "quality" or "timbre," and it will thus be understood that the pharynx, mouth, etc., affect the quality or timbre of the voice.

We can recognize that every sound possesses the elements of pitch, loudness, and quality. It matters not whether the sound be produced by the human voice, by a musical instrument, by the rustling of leaves, or by a knock upon the door—it has a certain