

an obstacle to the current of air, and it cannot pass without causing them to vibrate. These vibrations produce the voice; and as the vocal cords are susceptible of different degrees of tension, these tensions determine different sounds; giving an acute tone when the tension is great, but a grave and dull one when the tension is feeble.

125. Some mammals have, in addition, large cavities which communicate with the glottis, and into which the air reverberates, as it passes the larynx. This arrangement is especially remarkable in the howling monkeys, which are distinguished above all other animals for their deafening howls.

126. In birds, the proper larynx is very simple, destitute of vocal cords, and incapable of producing sounds; but at the lower end of the windpipe there is a second or inferior larynx, which is very complicated in structure. It is a kind

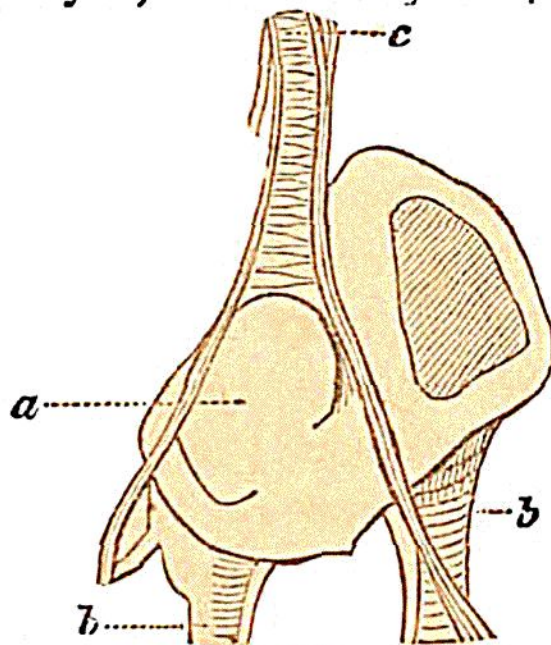


Fig. 23.

of bony drum, (*a*), having within it two glottides, formed at the top of the two branches (*bb*) of the windpipe, (*c*), each provided with two vocal cords. The different pieces of this apparatus are moved by peculiar muscles, the number of which varies in different families. In birds which have a very monotonous cry, such as the gulls, the herons, the cuckoos, and the mergansers,

(Fig. 23,) there is but one or two pairs; parrots have three and the birds of song have five.

127. Man alone, of all the animal creation, has the power of giving to the tones he utters a variety of definite or articulate sounds; in other words, he alone has the gift of speech.