

hairs, take up the circulating fluid, and bear it on to thousands of other small vessels, called *veins*, which run together from all parts towards the heart, growing fewer in number and larger in calibre, as they advance, until *two great veins* pour it back into the grand central organ, the heart, from which it set out. But that *blood*, you will remember, my young friends, is the great life-giver to our animal nature, furnishes all the organs with the elements needed for their healthy action, and when it has gone the round of the whole body, supplying every organ with its necessary nutriment, it becomes impoverished, loses its bright colour, and assumes a dark-red hue, and is incapable, unless restored to its first condition, of supporting life much longer. The heart consists of four chambers or compartments, which communicate with each other by a sort of *drop curtain*, called a *valve*, situated in the membranous and fleshy partitions which divide them. Now as soon as the blood has returned from its long circuit in this vitiated condition, it is allowed to enter on the *right* side of the heart, and to pass through two of these chambers, but is prevented by one of the partitions above named, from mingling with the richer and purer fluid, just returned, fresh and renovated from the *lungs*, until it has been pumped out through a large artery leading to the same organs, and has been re-vitalized itself, when it is carried back through the other two chambers, and sent out on its mission anew.

But my inquisitive young readers very properly inquire: "What are the *lungs*, and where situated?"—Well, then, the lungs are a pair of spongy organs, of a pinkish-grey colour, suspended within the chest, one on each side, and embracing

the heart. They are, each, throughout their whole extent, filled with thousands of little air-cells, into which hundreds of small tubes, which branch out from the wind-pipe, enter, and through which the atmosphere rushes when we breathe. In these delicate organs, all the dark, exhausted blood, of which we have spoken, is exposed to the action of the air, which is constantly charged with a vitalizing principle, called *Oxygen*. This, at every breath we draw, is being constantly absorbed, or sucked in through the thin membrane which here covers the minute blood-vessels, into the general mass of blood, and restores its vigor and purity—changes its hue to bright scarlet again, and prepares it to return to the opposite side of the heart, from whence, as we have said, it is sent out afresh to supply the wants of the entire system.

And now, would you believe it? there are in a full grown human body, about 25 pounds of *red blood*, the same which trickles from your wounded finger, when you have accidentally gashed it with your knife.

This whole amount rushes constantly through the heart, fourteen times in every hour, which is equal to 350 pounds per hour, or nearly 6 pints every minute! It may be interesting, also, to some of my young physiologists to know, that this strange and sleepless organ, the heart, labouring on constantly, and beyond the control of our will, beats 100,000 times every 24 hours, which is equal to 4,000 pulsations or thumps, every hour, and 66 or 67 every minute.

Should this great central muscle stop its work to rest one single minute, life would be endangered:—a few minutes, and death would follow. Our kind Heavenly Father,