

THE THORAX AND LARYNX.

The thorax is the treasure-house of the human body,—a veritable strong-room, girt about with walls of bone for the protection of those precious organs the heart and lungs. Let us imagine ourselves for a moment inside the thorax, but first, with your permission, let us empty this safe-deposit vault of its valuable contents, so that we may have space for exploration.

We find ourselves in a dark room or vault with a door in the roof. The floor of this vault, instead of being firm and solid, is a soft membrane or muscle,—not flat like an ordinary floor, but dome-shaped like the top of an open umbrella. The door above is a sort of double trap door set at an angle instead of being flat, and opening upwards. But the most extraordinary thing about this room is, that the floor is in constant motion, heaving upwards and downwards in regular pulsations. The trap doors also are in motion; now they are opened so that a glimpse can be obtained of passages above, and now they come together with a quivering motion, opening and shutting with great rapidity, and causing a vibration that makes the whole thorax tremble. The walls also are in motion, the whole room alternately increasing and diminishing in size.

A membranous muscle when it contracts tends to become flat and tense; and many of us have had the idea that the diaphragm or dome-like floor of the thoracic cavity, in contracting becomes flat like the head of a drum. This idea is incorrect, for the central portion of the diaphragm is attached above by ligaments and tissues to the bony walls of the thorax, so that it is incapable of descent. The circumference or edge, also, is attached. When, therefore, the diaphragm contracts, the dome-like floor becomes somewhat conical in shape. As I picture the action in my mind, it is as though the dome of the capitol in Washington were to change into a cone somewhat like a blunt church spire.