

FIG. 431.



FIG. 432.

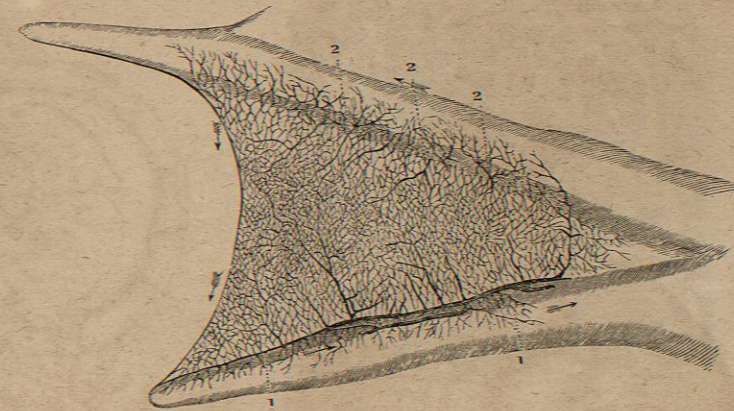


FIG. 433.



FIG. 434.



FIG. 435.



THE CIRCULATORY SYSTEM.

FIG. 431.

FIRST APPEARANCE OF BLOOD-VESSELS IN THE VASCULAR LAYER OF THE GERMINAL MEMBRANE OF A FOWL AT THE THIRTY-SIXTH HOUR AFTER INCUBATION.

FIG. 432.

A VIEW OF THE TERMINATION OF THE ARTERIES IN THE VEINS AS SHOWN IN THE WEB OF A FROG'S FOOT—MAGNIFIED 3 DIAMETERS.

- 1.1. The Veins.
- 2.2. The Arteries.

FIG. 433.

A MAGNIFIED VIEW OF THE CAPILLARY CIRCULATION IN THE WEB OF A FROG'S FOOT—MAGNIFIED 110 DIAMETERS.

- 1. Trunk of a Vein.
- 2.2. Its Branches.
- 3.3. Pigment Cells.

FIG. 434.

PARTICLES OF FROG'S BLOOD, MAGNIFIED ABOUT 500 DIAMETERS.

- 1.1. Their Flattened Face.
- 2. A Particle turned Edgewise.
- 3. A Lymph Globule.
- 4. Blood Corpuscles altered by dilute Acetic Acid.

FIG. 435.

CORPUSCLES OF HUMAN BLOOD, MAGNIFIED ABOUT 500 DIAMETERS.

- (1). Single Particles.
  - 1.1. Their Flattened Face.
  - 2. A Particle seen Edgewise.
- (2). Aggregation of Particles in a Columnar Form.

FIG. 436.



FIG. 437.

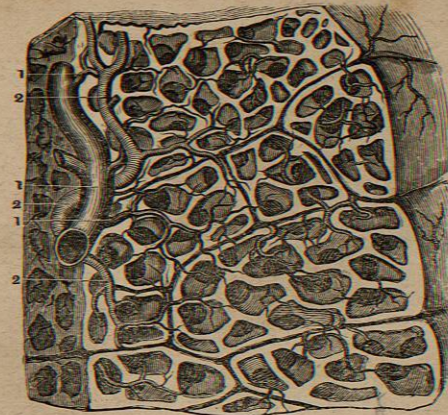


FIG. 439.

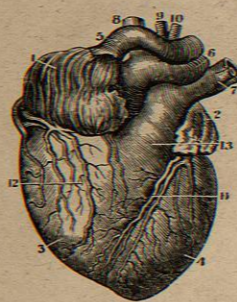


FIG. 438.

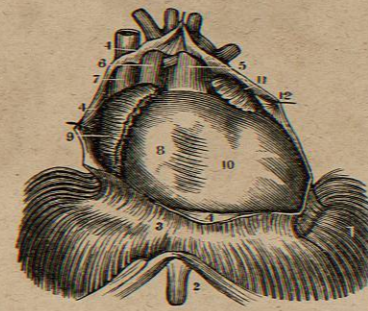
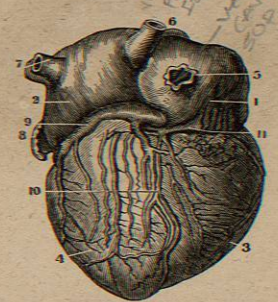


FIG. 440.



THE LUNGS AND HEART.

FIG. 436.

AN OUTLINE OF A TRANSVERSE SECTION OF THE CHEST, SHOWING THE RELATIVE POSITION OF THE PLEURÆ TO THE THORAX AND ITS CONTENTS.

1. The Skin on the Front of the Chest drawn up by a Hook.
2. The Skin on the Sides of the Chest.
3. That on the Back.
4. The Sub-Cutaneous Fat and Muscles on the outside of the Thorax.
5. Section of the Muscles in the Vertebral Gutter.
6. Section of the 5th Dorsal Vertebra.
7. The Spinal Canal.
8. Spinous Process.
9. 9. } Sections of the Ribs and Intercostal Muscles.
10. 10. }
11. Their Cartilages.
12. The Sternum.
13. The Division of the Pulmonary Artery.
14. The Exterior Surface of the Lungs.
15. Posterior Face of the Lungs.
16. Anterior Face of the Lungs.
17. Inner Face of the Lungs.
18. Anterior Face of the Heart covered by the Pericardium.
19. Pulmonary Artery.
20. } Its Division into Right and Left Branches.
21. }
22. Portion of the Right Auricle.
23. Descending Cava cut off at the Right Auricle.
24. Section of the Left Bronchus.
25. Section of the Right Bronchus.

26. Section of the Oesophagus.  
27. Section of the Thoracic Aorta.  
The space between Figures 12 and 18 and the two 16's is the Anterior Mediastinum, and the space which contains 26 and 27 is the Posterior Mediastinum. These spaces are formed by the Reflections of the Pleuræ.

FIG. 437.

A MAGNIFIED VIEW OF A SECTION OF THE LUNG, SHOWING THE ARRANGEMENT OF SOME OF THE LOBULES, THE COMMUNICATION OF THE AIR-CELLS IN ONE LOBULE AND THEIR SEPARATION FROM THOSE OF THE ADJOINING LOBULE. THE RAMIFICATIONS OF THE BLOOD-VESSELS IN THE TEXTURE OF THE LUNG AND THEIR COURSE THROUGH THE AIR-CELLS ARE ALSO SEEN.

- 1.1. Branches of the Pulmonary Veins.
- 2.2. Branches of the Pulmonary Artery.

FIG. 438.

AN ANTERIOR VIEW OF THE HEART IN SITU, THE PERICARDIUM BEING DIVIDED AND DRAWN BACK.

1. The Greater Muscle of the Diaphragm.
2. The Xyphoid Cartilage.
3. Tendinous Centre of the Diaphragm.
- 4.4. Section of the Pericardium drawn off from the Heart.
5. The Aorta.
6. Descending Vena Cava.
7. The Pulmonary Artery.

8. Right Ventricle.
9. Right Auricle.
10. Left Ventricle.

FIG. 439.

AN ANTERIOR VIEW OF THE HEART IN A VERTICAL POSITION WITH ITS VESSELS INJECTED.

1. Right Auricle.
2. Left Auricle.
3. Right Ventricle.
4. Left Ventricle.
5. Descending Vena Cava.
6. Aorta.
7. Left Pulmonary Artery.
8. The Arteria Indominata.
9. Left Primitive Carotid.
10. Left Sub-Clavian Artery.
11. Anterior Cardiac Vessels in the Vertical Fissure.
12. Posterior Vessels from the Transverse Fissure.
13. Main Trunk of the Pulmonary Artery.

FIG. 440.

A POSTERIOR VIEW OF THE HEART IN A VERTICAL POSITION AND WITH ITS VESSELS INJECTED.

1. Right Auricle.
2. Left Auricle.
3. Right Ventricle.
4. Left Ventricle.
5. Ascending Vena Cava.
6. Right Posterior Pulmonary Vein.
7. Left Posterior Pulmonary Vein.
8. End of the Left Auricle.
9. Great Coronary Vein.
10. Posterior Cardiac Vessels in the Vertical Fissure.
11. The same in the Transverse Fissure.

FIG. 441.

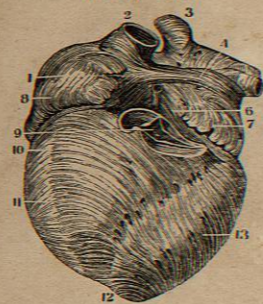


FIG. 442.

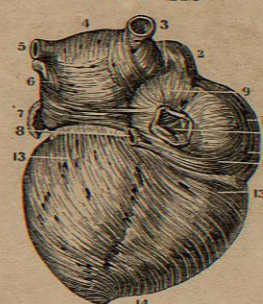


FIG. 445.



FIG. 443.

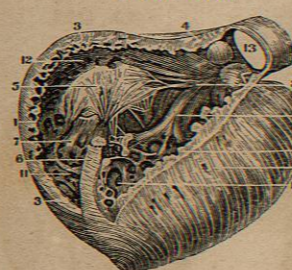
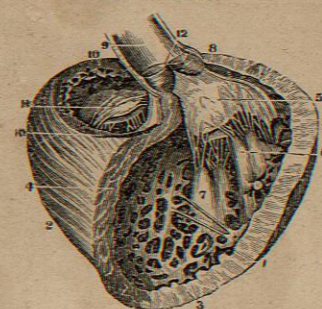


FIG. 444.



THE HEART.

FIG. 441.

AN ANTERIOR VIEW OF THE EXTERNAL MUSCULAR LAYER OF THE HEART AFTER THE REMOVAL OF ITS SEROUS COAT, &C.

1. Right Auricle.
2. Descending Vena Cava.
3. Right Anterior Pulmonary Vein.
4. A Horizontal Band of Fibres passing across the Base of the Auricles.
5. Left Anterior Pulmonary Vein.
6. Muscular Fibres between the Auricles.
7. The Fringed or Ring-shaped Bands of Fibres at the Extremity of the Left Auricle.
8. The Muscular Fibres at the Base of the Right Auricle.
9. Section of the Pulmonary Artery, showing the Semi-Lunar Valves.
- 10.11. The Anterior Bis Ventricular Muscular Fibres.
- 12.13. Their Continuation on to the Left Ventricle.

FIG. 442.

A POSTERIOR VIEW OF THE SAME.

1. Right Auricle.
2. Descending Vena Cava.
3. Right Posterior Pulmonary Vein.
4. Muscular Fibres of the Left Auricle.
5. Left Posterior Pulmonary Vein.
- 6.7. The Arrangement of the Muscular Fibres at the end of the Left Auricle.
8. Orifice of the Great Coronary Vein.
9. Band of Fibres between the two Venæ Cavæ.
10. The Orifice of the Ascending Vena Cava; the Eustachian Valve is at the end of the Line.
- 11.12. Muscular Fibres at the Base of the Auricle.
- 13.14. Muscular Fibres in the Ventricles.

FIG. 443.

A VIEW OF THE INTERIOR OF THE RIGHT VENTRICLE. THE REST OF IT HAS BEEN REMOVED, BUT THE LEFT VENTRICLE IS ENTIRE.

1. Section of the Parietes of the Right Ventricle.
2. Left Ventricle.
3. Thickness of the Parietes of the Right Ventricle.

4. Thickness at the commencement of the Pulmonary Artery.
5. Anterior Fold of the Tricuspid Valve.
6. A Portion of the Right Ventricle untouched.
- 7.8. Columnæ Carneæ of the Right Ventricle with their Cordæ Tendineæ.
9. The Right Side of the Ventricular Septum.
- 10.11. Cavities between the Bases of the Columnæ Carneæ.
12. The Depression leading to the Pulmonary Artery.
13. Interior of the Pulmonary Artery. Two of the Sigmoid Valves are seen, the third has been removed.

FIG. 444.

A THREE-QUARTER VIEW OF THE LEFT VENTRICLE AFTER THE REMOVAL OF ITS ANTERIOR PARIETES.

1. Outer Side of the Left Ventricle.
2. Outer Side of the Right Ventricle.
3. Thickness of its Outer Parietes.
4. Thickness of a Section near the Side of the Right Ventricle.
5. The Mitral Valve.
- 6.7. Two of the Columnæ Carneæ with their Cordæ Tendineæ as attached to the Valve.
8. Thickness of the Ventricular Parietes at the Origin of the Aorta.
9. Cavity of the Aorta.
- 10.10. Section of the Superior Surface of the Right Ventricle, showing the Ostium Venosum and Tricuspid Valve from above.
11. Tricuspid Valve.
12. Semilunar Valves of the Aorta.

FIG. 445.

A VIEW OF THE MITRAL VALVE OF THE SIZE OF LIFE.

The Drawing shows its two Folds, its Cordæ Tendineæ arising from the Columnæ Carneæ and those coming from the other Columnæ of the Ventricle. The lower part of the Figure is the portion of the Left Ventricle from which the main Columnæ arise; the upper portion is the Left Auriculo Ventricular Septum around the Left Ostium Venosum.

FIG. 446.

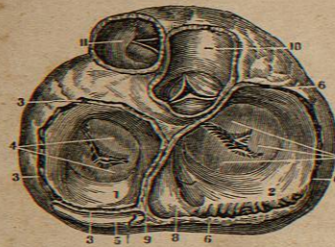
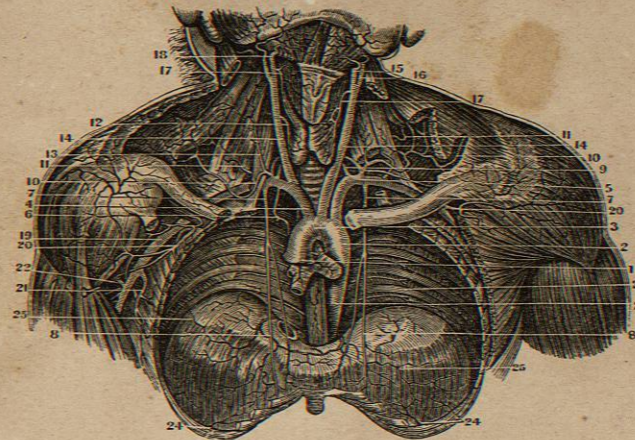


FIG. 447.



FIG. 448.



THE HEART AND ARTERIES.

FIG. 446.

A VERTICAL VIEW OF THE AURICULO-VENTRICULAR AND ARTERIAL VALVES, AS GIVEN BY A SECTION OF THE HEART AT THE OSTIUM VENOSUM AND OF THE ARTERIES AT THEIR VALVES.

1. Depression in the Left Auricle at the Left Ostium Venosum.
2. Depression in the Right Auricle at the Right Ostium Venosum.
- 3.3. Section of the Parietes of the Left Auricle.
4. Superior or Auricular Face of the two Folds of the Mitral Valve.
5. Section of the Greater Coronary Vein.
- 6.6. Section of the Parietes at the Base of the Right Auricle.
7. Auricular Face of the three Folds of the Tricuspid Valve.
8. The Orifice of the Greater Coronary Vein.
9. Septum of the Auricles.
10. A Section of the Aorta to show its Sigmoid Valves.
11. The Pulmonary Artery with its Valves.

FIG. 447.

A TRANSVERSE SECTION OF THE TOP OF THE VENTRICLES JUST BELOW THE BASE OF THE AURICLES.

- 1.1. Section of the Right Ventricle.
2. Right Auriculo-Ventricular Opening or Ostium Venosum.
3. The largest Fold of the Tricuspid Valve.
4. Depression to direct the Blood to the Pulmonary Artery.
5. Funnel-shaped enlargement near the Pulmonary Artery.
6. Section of one of the Columnæ Carneæ attached by the Cordæ Tendineæ to the Tricuspid Valve.
- 7.8. Other Columnæ Carneæ.
9. Section of the External Parietes of the Left Ventricle.
10. Section showing the thickness of the Ventricular Septum.
11. Left Ostium Venosum

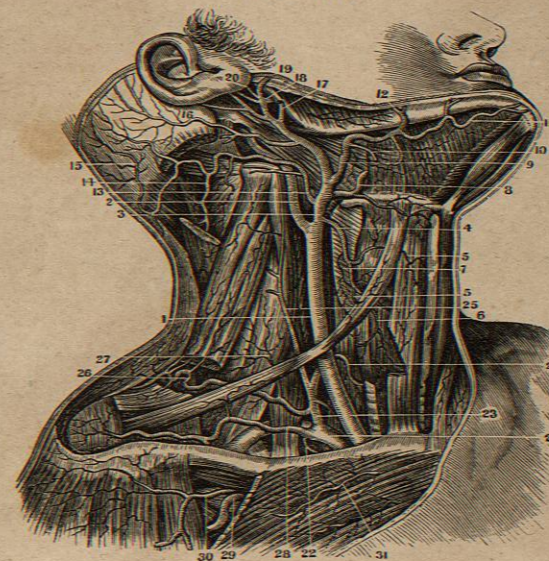
12. The Mitral Valve.
13. Ventricular Opening of the Aorta.
- 14.15. Columnæ Carneæ of the Mitral Valve.

FIG. 448.

A VIEW OF THE ARTERIES OF THE CHEST AND NECK.

1. The Aorta at its Exit from the Heart.
2. Ascending Portion of its Arch. One of the Coronary Arteries is just below the Line.
3. Arch of the Aorta.
4. Arteria Innominata.
5. Left Subclavian Artery.
6. Bronchial and Thymic Arteries, which are here not from the Aorta but from the Subclavian Artery.
7. External Mammary Arteries.
8. The Superior Phrenic Arteries, branches of the last.
9. The Vertebral Artery.
10. The Superior Scapular Artery; on the Right it goes to the Fossa Supra Spinata, and on the Left it is lost in the Trapezius Muscle.
11. Transverse Cervical.
12. Inferior Thyroid Artery seen on the Body of the Gland.
13. The Cervicalis Ascendens.
14. Primitive Carotid on the Neck.
15. Internal Carotid.
16. External Carotid.
17. Superior Thyroid Artery.
18. Arteria Facialis.
19. Arteria Axillaris.
20. Superior Thoracic, which furnishes the Acromial.
21. Trunk of the Anterior Circumflex and Inferior Thoracic.
22. Posterior Circumflex.
23. Thoracic Aorta.
- 24.24. Intercostal Arteries.
25. Distribution of the Phrenic Arteries upon the Diaphragm.

FIG. 449.



THE CAROTID ARTERY AND ITS BRANCHES.

FIG. 449.

A VIEW OF THE ARTERIES OF THE NECK AND SHOULDER.

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Primitive Carotid Artery.</li> <li>2. Internal Carotid Artery.</li> <li>3. External Carotid Artery.</li> <li>4. The Superior Thyroid Artery.</li> <li>5. Branches to the Muscles.</li> <li>6. Main Branch to the Gland.</li> <li>7. Inferior Pharyngeal Artery.</li> <li>8. Lingual Artery.</li> <li>9. Facial Artery.</li> <li>10. Its Branches to the Sub-Maxillary Gland.</li> <li>11. Sub-Mental Branch.</li> <li>12. Principal Branch of the Facial as it goes over the Jaw.</li> <li>13. Occipital Artery.</li> <li>14. Branches to the Muscles on the back of the Neck.</li> <li>15. Main Trunk to the Occiput.</li> </ol> | <ol style="list-style-type: none"> <li>16. Posterior Auricular Artery.</li> <li>17. A Branch cut off, which goes to the Parotid Gland.</li> <li>18. Origin of the Internal Maxillary Artery.</li> <li>19. Origin of the Temporal Artery.</li> <li>20. Origin of the Anterior Auricular.</li> <li>21. The Sub-Clavian.</li> <li>22. Origin of the Internal Mammary.</li> <li>23. Trunk of the Inferior Thyroid, from which arise in this subject the Anterior and Posterior Cervical Arteries.</li> <li>24. Branch of the Inferior Thyroid going to the Thyroid Gland.</li> <li>25. Anterior Cervical going up the Neck.</li> <li>26. Posterior or Transverse Cervical.</li> <li>27. Branches to the Scaleni and Levator Scapulae Muscles.</li> <li>28. The Superior Scapular Artery.</li> <li>29. The Thoracica Superior of the Axillary Artery.</li> <li>30. A Branch to the Deltoid.</li> <li>31. Recurrent Branches of the Intercostals.</li> </ol> |
|---|--|