PART FIFTH.

THE NERVOUS SYSTEM
AND
THE SENSES:

ONE HUNDRED AND TWENTY-SIX FIGURES.

FIG. 509.

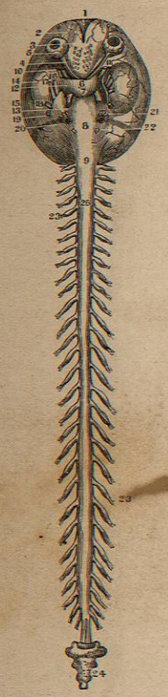


FIG. 511.

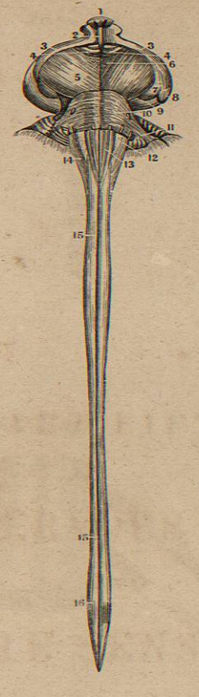
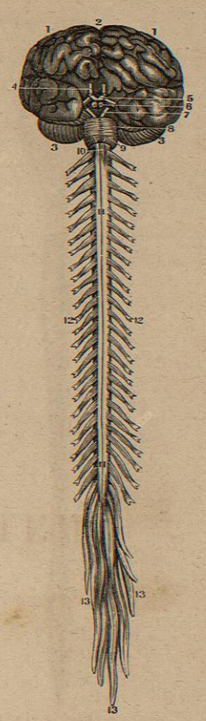


FIG. 510.



THE MEDULLA SPINALIS.

FIG. 509.

AN ANTERIOR VIEW OF THE EXTERNAL SURFACE OF THE DURA MATER OF THE SPINAL MARROW AND BRAIN.

1. The portion of the Dura Mater Cerebri which is attached to the Crista Galli.
2. The part covering the Anterior Fossæ of the Cranium.
3. A series of little Canals that it furnishes to the Olfactory Nerves.
4. The Fibrous Sheath of the Optic Nerves.
5. The Eye-Ball.
6. The Dura-Mater at the Superior Face of the Sphenoid Bone.
7. The same at the Sella Turcica.
8. The portion which covers the Basilar Gutter.
9. The part which passes through the Foramen Magnum to be continued on to that of the Medulla Spinalis.
10. The Dura Mater at the Foramen Lacerum of the Sphenoid Bone.
11. The 3d, 4th and 6th Pairs of Nerves, piercing the Dura Mater to pass out of the Foramen Sphenoidale.
12. The Dura Mater below the Cavernous Sinus.
13. The Carotid Artery.
14. The Dura Mater at the Temporal Fossa.
15. That on the sides of the Cranium.
16. 17. 18. Three Branches of the 5th Pair of Nerves piercing the Dura Mater.
19. The Facial and Auditory Nerves passing through their Canal.
20. Enlargement for the Internal Jugular Vein.
21. Glosso-Pharyngeal Nerve.
22. Pneumo-Gastric Nerve piercing the Dura Mater in front of the Enlargement for the Jugular Vein.
23. 23. The Fibrous Sheaths furnished to the Spinal Nerves by the Dura Mater of the Medulla Spinalis.
24. The Bones of the Coccyx with the Processes of the Dura Mater inserted into them.
25. The Anterior Face of the Dura Mater of the Medulla Spinalis.

FIG. 510.

AN ANTERIOR VIEW OF THE BRAIN AND SPINAL MARROW, AS EXTRACTED FROM THEIR OSSEOUS CAVITIES.

1. 1. The Hemispheres of the Cerebrum.
2. The Great Middle Fissure.
3. The Cerebrum.
4. The Olfactory Nerves.
5. The Optic Nerves.
6. The Corpora Albicantia.
7. The Motor Occuli Nerves.
8. The Pons Varolii.
9. The Fourth Pair of Nerves.
10. The lower portion of the Medulla Oblongata.
11. 11. The Medulla Spinalis in its whole length.
12. 12. The Spinal Nerves.
13. The Cauda Equinæ.

FIG. 511.

AN ANTERIOR VIEW OF THE SPINAL MARROW, MEDULLA OBLONGATA, &c., OF A NEW-BORN INFANT.

1. The Pituitary Gland.
2. The Infundibulum.
3. The Optic Nerves.
4. The Corpora Albicantia.
5. Crura Cerebri.
6. The triangular space between the Crura.
7. Corpus Geniculatum Internum.
8. Corpus Geniculatum Externum.
9. Posterior portion of the Thalami Nervi Optici.
10. Pons Varolii.
11. Its Prolongation into the Crus Cerebelli.
12. Emminentia Olivaria.
13. Corpora Pyramidalia.
14. Corpus Restiforme.
15. Anterior Middle Fissure of the Spinal Marrow.
16. Enlargement for the Origin of the Lumbar Nerves.

FIG. 512.

FIG. 514.

FIG. 513.

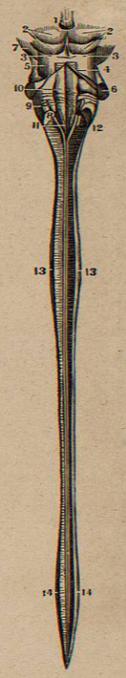
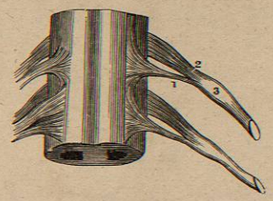


FIG. 515.



THE MEDULLA SPINALIS.

FIG. 512.

A Lateral View of the Spinal Marrow, &c., of a new-born Infant, to show the Lateral Fasciculus, which is then more Apparent.

1. Crura Cerebri.
2.3.4. One of the Hemispheres of the Cerebellum.
5. External Fasciculus of the Crus Cerebelli.
6. Lobulus Amygdaloides and Nervi Pneumogastrici.
7. Point where the Lateral Column of the Spinal Marrow enters the Cerebellum.
8. Pons Varolii.
9.10.11. Continuation of 7, or of the Lateral Fasciculus all the way down the Spinal Marrow. In the new-born Infant it is very nearly white, whilst the matter around is of a light grey.
12. Emminentia Olivaria.
13. Corpora Pyramidalia.
14. Corpus Restiforme.

FIG. 513.

A Posterior View of the Medulla Spinalis, with the Fasciculi of the Corpora Restiformia cut off from each side of the Calamus Scriptorius.

From the top of this section as far as the Lumbar portion of the Medulla Spinalis these posterior Fasciculi have been dissected out down to the Axis of the Medulla.

1. The Pineal Gland.
2. The Tubercula Quadrigemina.
3. Origin of the 4th Pair of Nerves.
4. The Valve of the Vieussens turned up a little.
5. Posterior portion of the Crus Cerebri.
6. Section of the Crus Cerebelli.
7. Anterior portion of the Crus Cerebri.
8. Section of the Corpus Restiforme on one side.
9. The Corpus Restiforme untouched on the other side.
10. A prominent Lateral Fasciculus on the Floor of the Calamus Scriptorius.
11. Point of the Calamus. From its Point to the End of the Medulla Spinalis are seen the junctions of the Fasciculi of each side, which make the Axis of the Medulla Spinalis.
12. The Lateral Fasciculus.
13. The enlargement for the Axillary Nerves.
14. The enlargement for the Lumbar Nerves.

FIG. 514.

An Anterior View of the Medulla Oblongata and of the Termination of the Decussation of Mitischelli.

1. The Pons Varolii.
2. The Emminentia Olivaria.
3. The Corpus Pyramidale.
4. The Corpus Restiforme.
5. The Decussation of Mitischelli.
6. The Anterior Columns of the Spinal Marrow.
7. The Lateral Columns.

FIG. 515.

A View of a small portion of the Spinal Marrow, showing the Origins of some of the Spinal Nerves.

1. The Anterior or Motor Root of a Spinal Nerve.
2. The Posterior or Sensory Root of a Spinal Nerve.
3. The Ganglion connected with the latter.

FIG. 516.

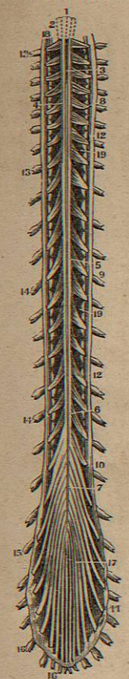


FIG. 518.

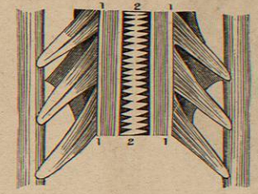
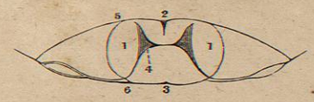


FIG. 517.

FIG. 519.

FIG. 520.



THE MEDULLA SPINALIS.

FIG. 516.

An Anterior View of the Spinal Marrow, seen in its whole length, after removal from the Spinal Canal.

1. Lines indicating the Corpora Pyramidalia.
2. Eminentia Olivaria.
3. Anterior Face of the Spinal Marrow.
4. Anterior Roots of the Cervical Spinal Nerves.
5. Anterior Roots of the Dorsal Nerves.
6. Anterior Roots of the Lumbar Nerves.
7. Anterior Roots of the Sacral Nerves.

8.9.10.11. The Anterior and Posterior Roots of the Spinal Nerves, united to pass out of the Dura Mater.

12. Dura Mater of the Medulla Spinalis.
13. Ganglia on the Cervical Nerves.
14. Ganglia on the Dorsal Nerves.
15. Ganglia on the Lumbar Nerves.
16. Ganglia on the Sacral Nerves.
17. Cauda Equina.
18. Sub-Occipital Nerve.
19. Ligamentum Denticulatum.

FIG. 517.

A Posterior View of the same Spinal Marrow.

1. Inferior Extremity of the Medulla Oblongata.
2. The Calamus Scriptorius.
3. The Posterior Face of the Spinal Marrow, with the Middle Fissure.

4.5.6.7. The Posterior Roots of the Cervical, Dorsal, Lumbar and Sacral Nerves. The other parts of this cut are the same as in Fig. 516.

FIG. 518.

A View of the Cervical Nerves of a Child of four Years of age, showing the Anterior Fissure laid open and the Suture-like appearance of the Anterior Commissure.

1. The Sides of the Anterior Middle Fissure.
2. The union of the two Halves, or the Anterior Commissure of the Spinal Marrow.

FIG. 519.

A View of the Posterior Commissure of the same Subject.

1. The Sides or Borders of the Posterior Fissure.
2. The union of the two Sides at the bottom of the Fissure, or the Posterior Commissure. This is seen to be formed by Longitudinal Fibres, whilst the Anterior is by Transverse.

FIG. 520.

A Transverse Section of the Spinal Marrow.

1.1. The two Halves of the Spinal Marrow.
2. The Anterior Middle Fissure.
3. The Posterior Middle Fissure.
4. The position of the Cineritous Matter to each Half of the Spinal Marrow.
5. The Origin of one of the Anterior Roots of a Spinal Nerve.
6. The Origin of one of the Posterior Roots.

FIG. 522.

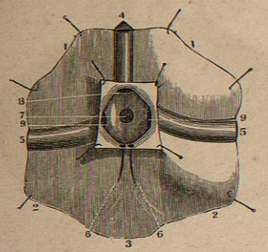


FIG. 521.

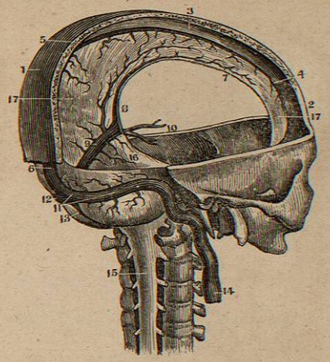


FIG. 523.

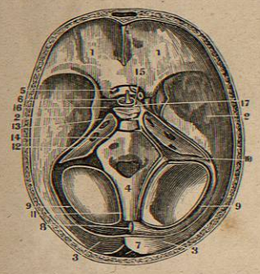
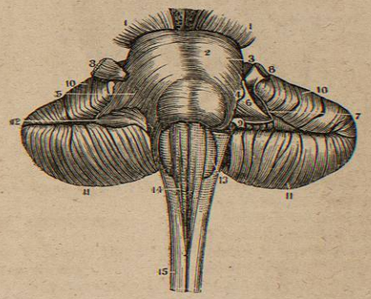


FIG. 524.



THE CEREBRAL SINUSES AND MEDULLA OBLONGATA.

FIG. 521.

A View of the Dura Mater of the Cranium and part of the Spinal Canal, with their Sinuses.

1.2.3. A Section of the Bones composing the Vault of the Cranium, showing the arched attachment of the Falx Major.
4. Anterior portion of the Superior Longitudinal Sinus.
5. Its Middle Portion.
6. Its Inferior Portion; the outer table of the Cranium is removed.
7. Commencement of the Inferior Longitudinal Sinus.
8. Its Termination in the Straight Sinus.
9. The Sinus Quartus or Rectus.
10. The Venæ Galeni.
11. One of the Lateral Sinuses.
12. The Torcular Hierophili.
13. The Sinus of the Falx Cerebelli.
14. The Internal Jugular Vein.
15. The Dura Mater of the Spinal Marrow.
16. The Tentorium Cerebelli.
17.17. The Falx Cerebri.

FIG. 522.

The Junction of the Sinuses of the Dura Mater, seen from behind and laid open.

1.1. A portion of the Dura Mater of the Superior Occipital Fossa.
2.2. Portion of the Dura Mater of the Inferior Occipital Fossa.
3. The Dura Mater from the Foramen Magnum.
4. Posterior Extremity of the Superior Longitudinal Sinus.
5. Portions of the Lateral Sinuses.
6. Outline of the Lower Occipital Sinus.
7. The Torcular Hierophili.
8.9. The Openings into the Torcular Hierophili.

FIG. 523.

A Horizontal Section of the Cranium to show the Sinuses at its Base: those on the Right Side are injected, those on the Left are empty.

1. The Fossæ for the Anterior Lobes of the Brain.
2. The Fossæ for the Middle Lobes.
3. The Fossæ for the Posterior Lobes.
4. The Basilar Gutter lined by the Dura Mater.
5. The Optic Nerves.
6. The Infundibulum.
7. A Section of the Superior Longitudinal Sinus.
8. The Torcular Hierophili.
9. The Middle part of the Lateral Sinuses.
10. The same Sinus at the Posterior Foramen Lacerum.
11. One of the Occipital Sinuses.
12. The Superior Petrous Sinus.
13. Its Anterior Extremity opening into the Cavernous Sinus.
14. The Inferior Petrous Sinus.
15. The Sella Turcica of the Sphenoid Bone.
16. The Cavernous Sinus.
17. The Circular Sinus around the Sella Turcica and opening into the Cavernous Sinus.

FIG. 524.

A Posterior Superior View of the Pons Varolii, the Cerebellum, and the Medullæ Oblongata and Spinalis.

1.1. The Crura Cerebri.
2. The Pons Varolii or Tuber-Annularis.
3. Its middle Fossa.
4. An Oblique Band of Medullary Matter seen passing from its side.
5. The External Surface of the Crus Cerebelli in its natural state.
6. The same portion deprived of outer layer.
7. The Nervous Matter which united it to 4.
8. The Trigeminus or Fifth Pair of Nerves.
9. Portion of the Auditory Nerve. The white Neurine is seen passing from the Oblique Band which comes from the Corpus Restiforme to the Trigeminus Nerve in front, and the Auditory Nerve behind.
10.11. The Superior portion of the Hemispheres of the Cerebellum.
12. Lobulus Amygdaloides.
13. Corpus Olivare.
14. Corpus Pyramidale.
15. Medulla Spinalis.

FIG. 525.

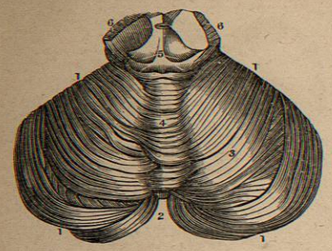


FIG. 526.

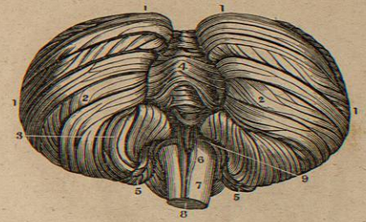


FIG. 527.

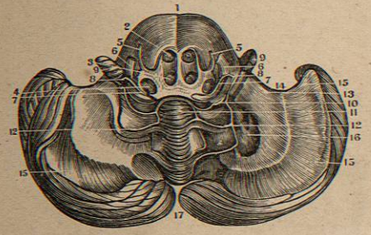
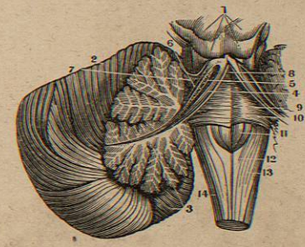


FIG. 528.



THE CEREBELLUM.

FIG. 525.

A View of the Superior Face of the Cerebellum.

1.1. The Circumference of the Cerebellum.
2. The Space between its Hemispheres behind.
3. One of the Hemispheres of the Cerebellum, showing the Laminæ which compose it.
4. The Vermis Superior.
5. The Tubercula Quadrigemina.
6. Section of the Crura Cerebri.

FIG. 526.

A View of the Inferior Surface of the Cerebellum and a portion of the Medulla Oblongata.

1.1. The Circumference of the Cerebellum.
2.2. The two Hemispheres of the Cerebellum.
3. Lobulus Amygdaloides.
4. The Vermis Inferior.
5. Lobulus Nervi Pneumogastrici.
6. The Calamus Scriptorius.
7. Its Point.
8. Section of the Medulla Oblongata.
9. Points to the Origin of the Pneumogastric Nerve.

FIG. 527.

A View of the under side of the Cerebellum. The Pons Varolii is at the top of the Cut, and the Fasciculi of the Spinal Marrow which ran on to the Pons have been carefully detached.

1. Pons Varolii.
2. Canal for the Corpus Pyramidale.
3. Canal for the Emminentia Olivaria.
4. Canal for the Fasciculi of the Corpus Restiforme.
5. The Seventh Pair of Nerves.
6. The Auditory Nerve.
7. The Roots of these Nerves united to the Floor of the 4th Ventricle.
8. Medullary Layer to unite the Auditory Nerves to the Lobulus Amygdaloides.
9. These Lobules.
10. Medullary Matter by which the Auditory Nerves are connected with the Vermis Inferior.
11. The Vermis Inferior.
12. The Striæ running to the Lobulus Amygdaloides.
13. Posterior Face of the Left Crus Cerebelli.
14. External face of this Crus.
15.15. The Expansion of the Fibres of the Crus Cerebelli.
16. Left Corpus Rhomboideum laid open; on the other side it is untouched.
17. The Fissure between the Hemispheres of the Cerebellum.

FIG. 528.

A View of the Arbor Vitæ and the Fundamental Portion of the Cerebellum, together with the Floor of the Fourth Ventricle.

1. The Tubercula Quadrigemina.
2. The Superior Surface of the Cerebellum.
3. Its Inferior Surface, and also the Arbor Vitæ. In the Trunk of the Arbor Vitæ are seen three Fasciculi running up to the Tubercula Quadrigemina. The most internal of these is
4. A Fibrous Layer in which are collected all the Filaments which pass from the Parietes of the Aqueduct of Sylvius to the Vermis Inferior.
5. Is the Fasciculus outside of the preceding, which runs from the Trunk of the Arbor Vitæ behind the Tubercula Quadrigemina.
6. Is that from which all the Fasciculi of the Vermis Superior pass to the Tubercula Quadrigemina.
7. A very delicate Medullary Layer, which passes from the Anterior Surface of the Crus Cerebelli under the Cineritious Matter of the Cerebrum.
8. The Anterior Extremity of the Fourth Ventricle, drawn back and leading to the Aqueduct of Sylvius.
9. Middle Furrow on the Floor of the Fourth Ventricle.
10. Tracts of Nervous Matter running to the Auditory Nerve.
11. Elevated portion of the same on the Floor of the Fourth Ventricle.
12. Middle Fissure in the Calamus Scriptorius.
13. Corpora Restiformia.
14. Lateral portion of the Spinal Marrow.