EXPLANATION TO PLATES.

PLATE I.

I Placenta. II. Liver. III. Heart. IV. Kidneys. V. Bladder.
(1.) Arch of the Aorta and vessels of the neck arising from it.
(2.) Ductus arteriosus Botalli.
(3.) Arteria pulmonalis.
(4.) Ductus venosus Arantii.
(5.) Vena cava superior.
(6.) Vena cava adscendens.
(7.) Venæ pulmonales.
(8.) Vena umbilicalis.
(9.) Arteriæ umbilicales.

PLATE II.

Figs. 1 and 2. Schematic drawings of the Parietal Bone for the demonstration of the physiological enlargement of the greater fontanel.
Fig. 3. Normal human Milk, according to Funke.
Fig. 4. Normal Colostrum, according to Funke.
Figs. 5, 6, and 7. Schematic Sections of various kinds of Cephalæmatomæ. Fig. 5. Cephalæmatoma subpericranicum. Fig. 6. Ceph. subaponeuroticum. Fig. 7. Ceph. duræ matris.
(1.) Scalp. (2.) Galea aponeurotica. (3.) Pericranium. (4.) Cranial bone. (5.) Dura mater. (6.) Bony-ring (only possible in Fig. 5).
Fig. 8. Schematic Section of an Umbilical Stump. (*a*) Stump, (*b*) the Cutaneous Ring surrounding it.
Fig. 9. *a* and *b* Schematic Delineation of the so-called Flesh-navel. (*a*), previous; (*b*), after the Cord has fallen off.

PLATE III.

Fig. 1. Impressions of the Teeth in the Tongue in Stomacace.
Fig. 2. Thrush-fungi, according to Kuechenmeister.
(*a*) Fragment of a detached Thrush-membrane, (*b*) and (*c*) Spores, (*d*) Thallus filaments with sheaths, (*e*) Free end of a Thallus filament slightly thickened, (*g*) Thallus filaments, with indentations.
Fig. 3. *A*, Intussusception of a piece of the Intestines; *B*, Schematic Section, according to Foerster. (*a*) the Intussusceptum, (*b*) the Reflected portion, and (*c*) the Sheath, (*d*) and (*e*) the place of reflection, (*f*) the dragged in Mesentery.
Fig. 4. Longitudinal Section of the Sacrum and of the Rectum. (1.) Sacrum. (2.) Rectum. (*a*) upper, (*b*) middle, and (*c*) lower portion of the Rectum. (3.) Peritonæum. (4.) Uterus. (5.) Vagina. (6.) Labia. (7.) Bladder. (8.) Perinæum.

Figs. 5, 6, 7, 8, and 9. Schematic sections of imperforation of the Rectum and of its abnormal terminations: (*r*), Rectum; (*n*), Nates-fold; (*a*), Anal-invagination; (*b*), Bladder; (*v*), Vagina.
Fig. 10. Schematic delineation of an Ectopia of the Bladder, according to Foerster.
Figs. 11, 12, 13, and 14. Schematic representation of Hydroceles.
Fig. 11. Hydrocele canalis vaginalis testiculi *aperta*.
" 12. Hydrocele fundi canalis vaginalis testiculi *clausa*.
" 13. Hydrocele colli canalis vaginalis testiculi *aperta*.
" 14. Hydrocele colli canalis vaginalis testiculi *clausa*.
(*a*), Piece of the Peritonæum viewed from within; (*b*), Open canalis vaginalis; (*c*), Testicle; (*d*), Dropsical distension of a portion of the Inguinal Canal.

PLATE IV.

Figs. 1–3. Bothriocephalus latus.
Fig. 1. Head, natural size.
Fig. 2. Magnified head with long neck.
Fig. 3. Single pieces. The sexual opening is seen in the centre of each joint.
Figs. 4–7. Tænia solium.
Fig. 4. Head, natural size.
Figs. 5 and 6. Magnified Head, seen from the side and from above.
Fig. 7. Joints. The sexual opening is seen at the side.
Figs. 8–9. Ascaris lumbricoides, Round-worm.
Fig. 8. A ruptured female of natural size, with prolapsed intestines. The brownish-colored pouch is the alimentary canal, the white coils are the ovaries.
Fig. 9. The curved tail of the male with double prongs, magnified.
Figs. 10–13. Oxyuris vermicularis, Thread-worm.
Figs. 10 and 11. Female, natural size and magnified.
Figs. 12 and 13. Male, magnified and of natural size.
Figs. 14 and 15. Tricocephalus dispar, Whip-worm, natural size.
Fig. 14. Female. Fig. 15. Male.

PLATE V.

Figs. 1 and 2. Schematic section of (1) normal, and (2) rachitic infantile thorax.
(1.) Sternum. (2.) Costal Cartilages. (3.) Ribs. (4.) Ribs divided by the section. (5.) Intercostal spaces. (6.) Fifth dorsal vertabra. (7.) Heart. (8.) Bulbous, rachitic hypertrophy.

PLATE VI.

Fig. 1. Rachitic costal ends, according to Virchow.
Fig. 2. Sections of the same.
Fig. 3. Section of a rachitic femur.
Figs. 1, 2, 3. (*a*), bluish layer of large cancellous bony extuberance; (*b*), Goblet-shaped tumefaction of the young bones; (*c*), Dentated wave-line between the cartilage and bone.
Fig. 4. Rachitic Skull. Craniotabes, according to Elsaesser. On the light-colored places the calcareous salts have disappeared, dura mater and pericranium are in contact with each other.

PART I.

INTRODUCTORY REMARKS.

CHAPTER I.

ANATOMO-PHYSIOLOGICAL REMARKS UPON THE INFANTILE ORGANISM.

A. Respiration and Circulation.—The first act of the new-born is to inspire. Immediately after birth the muscles of inspiration contract, and the air finds its way for the first time into the pulmonary vesicles. The increase in volume of the lungs consequent upon this act gives rise on the one hand to an outward enlargement of the thorax, but on the other to a compression of those internal organs of the chest in juxtaposition with the lungs, *i. e.*, heart, large blood-vessels, and thymus gland, and also to a depression of the diaphragm, whereby a palpable pressure is necessarily exerted upon the abdominal viscera. This sudden change in volume of both thoracic and abdominal viscera, in connection with other physiological alterations, leads doubtless to alterations in the circulation of the different organs, and the following fœtal circulation, in fact, becomes established immediately or soon after birth.

(1.) *The Ductus Venosus Arantii* (Plate I., Fig. 2).—The umbilical vein arising from the placenta (Pl. I., Fig. 5), after its entrance through the umbilical ring, runs between the peritonæum and transversalis muscle to the liver, and through the fossa longitudinalis anterior sinistra backward to the left end of the fossa transversa. Here it divides into two branches, of which one, the larger, communicates with the portal vein, and the smaller, the *ductus venosus Arantii*, leads into the inf. vena cava (Pl. I., Fig. 3). The duct. ven. Arantii, therefore, connects the vena cava ascendens with the umbilical vein, but this connection, as well as that with the portal vein, ceases as soon as the placenta is expelled from the uterus, and the blood in the