

(c) The *straight* variety is rare. In this form the pylorus is situated at or below the level of the umbilicus, and its changes of position are accompanied by much stretching of the duodeno-hepatic ligament. The stomach becomes elongated and its diameter diminished, while its long axis tends to assume a vertical direction. The liver is rotated backwards, and is often laterally compressed; the right kidney is loose, the spleen is depressed and deformed, and not infrequently the other abdominal viscera undergo a downward dislocation.

*Causation.*—Vertical displacement of the stomach is very rare in men, but is not infrequent in women. The conditions which favour its development are—(1) Severe pressure exercised upon the organ by the liver and spleen, owing to a natural or artificial constriction of the chest, and (2) extreme laxity of the abdominal parietes. According to Chapotot and other French authorities, the principal cause of the thoracic deformity is the use of a tight corset during the period of puberty, which tends to narrow all the diameters of the upper portions of the abdominal cavity, and to prevent their development during the growth of the body. The line of pressure extends from the sixth to the tenth ribs, and divides the thorax into two cones which have their apices at the waist line. The liver being composed of dense tissue, is often grooved across its anterior surface at the level of the ensiform cartilage, and tends to press the pylorus and lesser curvature downwards and inwards in the direction of the least resistance. On the opposite side the line of constriction crosses the stomach below the fundus, with the results that the cardiac portion of the viscus is forced upwards while the rest is pushed downwards and compressed by the spleen. In this manner the organ is sometimes moulded into two sacs, which are superimposed one with the other. This form of dislocation is greatly favoured by the lax condition of the abdominal wall that results from repeated pregnancies, or by attenuation of the tissues in emaciated persons. All enlargements of the liver tend to press the stomach downwards and inwards, and if the spleen is also increased in size the stomach may be so squeezed between these two solid organs that it not only assumes a vertical position, but becomes so diminished in transverse diameter as to closely resemble a piece of large intestine (Kussmaul, Bouveret.) In this country, where tight corsets are less in favour than in France, and are rarely worn by young girls, the dislocation of the stomach more often depends upon some maformatoin of the thorax or upon arrested development of the organ itself. The rickety chest, which presents much narrowing of its transverse diameter with eversion of the costal margins, is almost always associated with downward