[Aug. 24, 1895

(I) Downward displacement of all the abdominal and pelvic organs, and numerous functional and organic diseases growing out of this disturbance of the static relation of these organs.

(2) Lack of development of the muscles of the trunk, which by long compression and disuse, to a very large degree lose their functional activity, resulting in relaxation of the abdominal walls, weakness of the muscles of the back, general physical feebleness, and destruction of the natural curves of the body, which are not only necessary for health, but also essential to physical grace and beauty, and the development of many bodily deformities, such as drooping shoulders, flat or hollow chest, sunken epigastrium, straight spine.

(3) An ungraceful and unnatural carriage of the body, in sitting, standing, and walking.

(4) An abnormal mode of respiration. The idea that a displaced stomach can be a possible cause of disease or inconvenience may be new to some. Nevertheless, the researches of Glenard, Bouchard, Dujardin, Beaumetz, and other eminent French physicians have shown beyond room for doubt that displacement of the stomach, bowels, kidneys, liver, and other abdominal viscera, may be productive of the most pronounced disturbance of health and a source of great inconvenience. Indeed, from my own studies on this subject I have become convinced that a displaced and dilated stomach is more likely to be productive of immediate and harmful consequences of a grave character, than displacement of the pelvic viscera. But before one can fully understand the relation of waist constriction to displacement of the abdominal viscera, it will be necessary to call to mind a few important anatomical facts.

The trunk is practically divided into two The division of the lower cavity into cavities. pelvis and abdomen is an artificial and not an anatomical subdivision, useful for the purpose of description, but misleading and confusing, unless ignored in studies concerning causation and pathological relations. Anatomically, the trunk is divided by the diaphragm into two cavities only, the upper containing the chief organs of respiration and circulation, and the lower containing the principal organs of digestion and the genito-urinary apparatus. The chief anatomical facts which I desire to be kept in mind are, the normal position of each of the viscera which occupy the lower cavity of the trunk, and the mode in which these various organs are held in place. It will be remembered that the liver, spleen, pancreas, and stomach are all located above or at the waist. The transverse colon lies at the waist line, the point of

junction of the ascending and transverse colon on the right side dropping a little below the line, while the point of conjunction of the transverse with the ascending colon at the left side rises considerably above the waist line, being held in place by the pleuro-colic fold of the meso-colon. The kidneys lie just at the waist. The greater portion of the space below the waist is occupied by the small intestines, the bladder, and the rectum, with the uterus and its appendages in the female, and the prostate gland and other special structures in the male. It is noticeable that the organs of the greatest weight and functional importance are located at or above the waist.

How are all these important organs held in position? Although fitted together with the nicety of an articulation, the viscera are certainly not held together by anything corresponding to the firm ligamentous bands which unite the osseous elements of a joint. Every abdominal surgeon will testify to the extreme propensity for escaping from the abdominal cavity when the slightest opportunity offers, manifested by some of the viscera. The so-called ligaments which hold in place the liver, stomach, spleen and bowels, cannot properly be called ligaments, as very little ligamentous structure enters into their composition. The same must be said of the ligaments which are supposed to support in place the uterus and ovaries, although it must be added that some of the uterine ligaments contain muscular tissues which play a very important part in maintaining the uterus in its proper relation to the trunk and the contiguous organs. I think the idea is gaining ground among those who have made a special study of this subject, that the chief factors in the support of the pelvic viscera, as well as other of the organs of the lower trunk cavity, are the tone of the muscular walls of the abdomen and the juxtaposition of the organs themselves.

Compression of the waist necessarily involves displacement of the organs occupying this portion of the trunk. The unyielding character of the chest walls, and the resistance of the diaphragm prevent any considerable displacement in an upward direction. Consequently, the necessary result of waist compression, either by the corset or by tight bands, is, that the liver, stomach, bowels, and other organs occu-pying this zone of the body, are carried down-The same compressing force which ward. diminishes the circumference of the body at the waist, interferes with the normal activity and development of the muscles which form the anterior wall of the lower trunk, so that they offer little resistance to the displacing force applied at the waist.

(To be continued.)

104



