The authors then describe in detail the changes in the glands, the epithelium and protoplasm. In connection with the question of secretion they think there can be no doubt that the epithelial cells which show abundance of plasma, as opposed to those which were completely filled by the nucleus, are occupied in the formation of secretion.

Among other points of special interest they draw attention to the fact that mitoses are entirely absent in the premenstrual phase, and that there is a radical difference between the production of mucus of the cervix and that of the body of the uterus. In the cervix the mucus can be found in the epithelium, and the epithelia also stain on the application of mucus-colouring media; secretion follows regularly and is not confined to any special period. The glands of the body, on the other hand, secrete only in the premenstrual period; mucus is not observable in the epithelium, and it is only in the glandular lumen that the secretion acquires the capacity of giving the familiar mucus reactions. The whole question of the secretion of the uterine glands has hitherto been little studied, and the fact that they form a mucus-like secretion, though only at definite periods (viz. premenstrually) is of great interest, all the more so as the authors were able to establish that the same process occurs in the case of the young decidua also.

Finally, in describing the changes in the connective tissue, the authors point out the importance of having established the premenstrual occurrence of such changes in the superficial layers, inasmuch as it explains the much-cited statement of Ruge that the decidua-cell is not characteristic for pregnancy, because it also occurs outside pregnancy.

II. Menstruation.

The approach of the menstruation may be recognised by the fully distended wide capillaries and the minute extravasations of blood round them. The extravasations of blood in the superficial layers, originally very small, increase more and more in volume until they finally meet. Thus microscopically we have a complete picture of menstruation even before a drop of blood has yet reached the cavum uteri.

In consequence of the succeeding hæmorrhage into the superficial layers the tissue is rent in many places. Together with the blood, lymphocytes and leucocytes make their way in great numbers into the tissue. Thus red and white blood-corpuscles may be seen between the connective tissue cells which have been loosened and disarranged, and the distinctive character of the premenstrual connective tissue cells of the compact portion is obliterated.