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Medical, Surgical and Physical Science.

ORIGINAL COMMUNICATIONS.

ART. XXXIX.—Pathological Histology, by DR. GOTTLIEB GLUGE. Translated from the German by JOSEPH LEIDY, ESQ., M. D., Philadelphia.

> THIRD SECTION. Formation of the Blastema.

We have now to determine the sources whence the plastic substance is derived which furnishes the material for the development of the new tissues.

11. Nutrition, Secretion, and Inflammation.

In the process of nutrition, the vascular system of each organ separates under its influence the necessary elements; urine in the kidney, bile in the liver, etc.

In this manner, a large quantity of plastic matter is deposited in the structure of the pregnant uterus, which is transformed into fibres observable in various stages of development. If nutrition becomes abnormal, from causes which must remain unknown until we are acquainted with the laws of the normal process, there exudes from the blood vessels a liquid resembling serum, as in simple dropsy, or only single elements may exude, as fat in stearosis. In other cases albumen and fibrine are effused which experience little or no metamorphosis, or they become converted into perfect tissue, in the development of which the organ, the seat of the secretion, exerts a powerful influence. Τhe tissue produced determines hypertrophy, or forms isolated masses constituting tumors. In a final case the blood stagnates and its corpuscles accumulate and experience