

THE UPPER CANADA JOURNAL.

OF

Medical, Surgical and Physical Science.

ORIGINAL COMMUNICATIONS.

ART. XLIV.—*Pathological Histology*, by DR. GOTTLIEB GLUGE.
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SIXTH SECTION.

On Gangrene.

Life exhausts all tissues, and their elements are unceasingly renewed from the blood. When such a renewal ceases, the tissues and organs dry up, or more frequently undergo decomposition, usually under, but also without the influence of the air, and lose the determinate form necessary to their function. They become gangrenous, or as we say of the bones, necrosed.

Gangrene, desiccation, or mummification (necrosis), and dying off, do not, however, have exactly the same meaning. Many tissue-elements of the body die off without becoming therefore gangrenous; that is to say, decomposed. In this manner the epithelial cells of membranes die, and are thrown off; the same is the case with osseous tissue, and this occurs without the structure of the tissues being particularly altered. Gangrene, on the contrary, is a true decomposition of the organs and tissues.

1. In gangrene, the latter break up into small molecules, which at first preserve the direction of the fibres entering into their composition. The muscles lose their transverse striæ, the cells lose their walls, and break up into nuclei, and nucleoli, which likewise finally dissolve, until a liquid black-red, putrid ichor, is formed, which contains only irregular molecules with numerous crystals never absent,