middle layers of the lamellæ, while the uveal portion equals the posterior lamellæ, Descemet's membrane and the endothelium. Bearing this division in mind helps considerably in understanding the route of pathological processes. The conjunctival portion of the cornea suffers most from pathological conditions of the conjunctiva. We know the majority of cases of conjunctivitis are caused by pathogenic micro-organisms. We know also that corneal regenerative processes are about as rapid as the conjunctival, but when pathogenic bacteria complicate the repair, conditions are different. Ordinarily the cornea has a sufficient amount of lymph for its nutrition, but with the entrance of pathogenic micro-organisms upon the scene, the cornea is vastly inferior in regenerative ability. It is now a struggle between micro-organisms and the cells which have so often a considerable distance to go. This is why ulceration in the centre of the cornea develops and spreads so easily.

Ulcers begin as a rule in the conjunctival part of the cornea, quickly invade healthy tissue and entail a loss of substance. When repair begins, the cells of the tissue conquer the pathogenic processes by opposing to them a barrier of cells—a zone of infiltration. This produces an arrest of the ulcerative process. The loss of substance must now be replaced. The histology of ulcers of the cornea has been thoroughly studied. Loss of epithelium is replaced by growth of epithelium from the edges of the ulcer, that is, healing with a perfect restoration to the normal state without leaving a permanent opacity. Loss of corneal stroma is filled by ciccatricial tissue from the bottom and sides of the ulcer and is different from the normal tissue of the cornea. It is opaque.

Inflammations of the cornea may be divided into two groups, primary and secondary. This division is especially applicable to ulcers. By secondary, we mean ulcers the result of inflammation in the conjunctiva and in this group belong the vast majority of cases. The normal conjunctival sac is at times the seat of pathogenic bacteria and many cases of conjunctivitis from micro-organisms may be so mild as to cause the patient no inconvenience. When in these cases the epithelium is abraided, or when in cases of pronounced conjunctivitis or dacryocystitis the cornea is accidentally scratched the entrance of bacteria into the corneal tissue is allowed. When this happens the conjunctival micro-organisms play a most important rôle, to such an extent in fact, that our results, good or bad, depend upon our ability in combating this cause. Too frequently, while doing our best, we see useful vision destroyed, and this so often in patients who can ill afford the wage earning ability of one eye.