

# **Suture Repair of Involuntional Entropion.**

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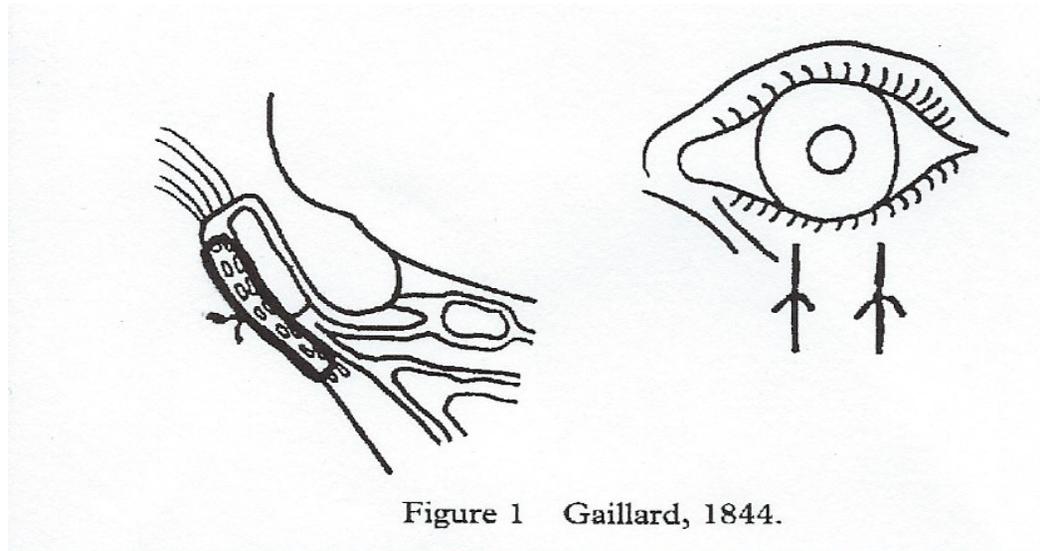
**Progress in Medical Science and development of new surgical techniques is largely due to the interaction of new ideas and new technology.**

**There is a temptation to be concerned only with the present and the future, and to ignore the past. However it is important to recognise that brilliant ideas can go into disrepute, because they pre-date by many years the necessary technology to bring them to full fruition.**

**The suture repair of involutional entropion is such an idea!**

**The first report of suture repair of entropion in the literature is by Hippocrates in the fifth century BC.**

**He passed a ligature through a horizontal fold of skin just beneath the free border of the lower lid and allowed it to suppurate out.**



**Gaillard (1844) introduced 1-3 curved needles carrying silk into the skin just below the lashes, which penetrated to the tarsus, following its anterior surface, and including skin and orbicularis, before emerging some 15 mm or more below the entrance point. These he then tied tightly with loops and awaited their spontaneous release.**

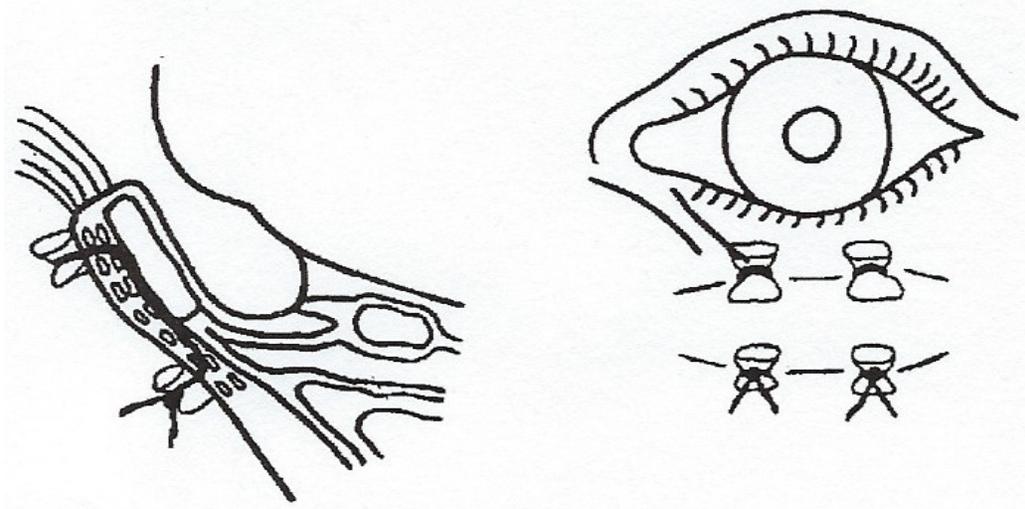


Figure 2 Arlt, 1856.

**Arlt (1856) used two silk sutures each armed on two needles. He picked up a horizontal fold of skin between his thumb and forefinger. He then passed one pair of needles through this fold 2-3 mm apart, as in Gaillard's operation, at the junction of the inner and middle thirds of the lid, and the second pair through the fold at the junction of the middle and outer thirds of the lid. These sutures were then tied tightly with both loops and knots over bolsters and removed after 48 hours.**

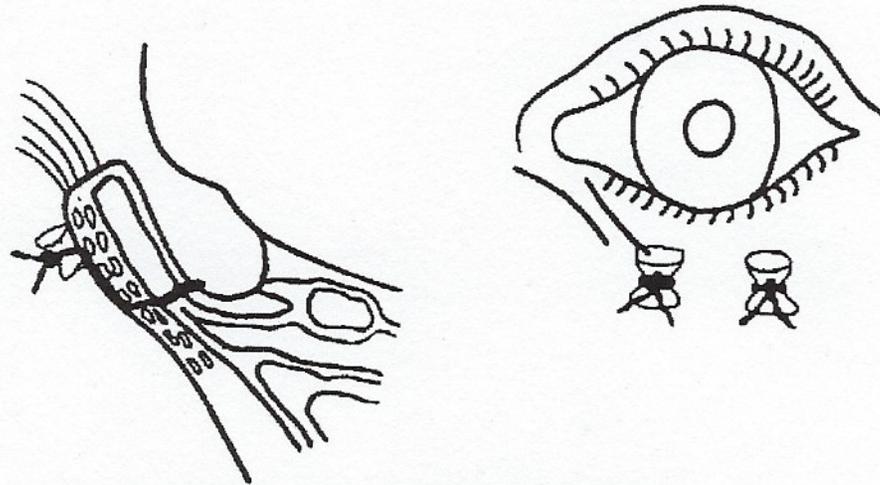


Figure 3 Snellen, 1863.

**Snellen (1863) introduced the current suture. He passed two or three parallel, double-armed, silk sutures from the conjunctival surface below the tarsal plate, full-thickness through the eyelid. These sutures were then reinserted under skin again, and passed upwards, in parallel, to re-emerge out of skin for a second time, 2mm below the cilia. They were then tied over a bolster and left for 3-4 days.**

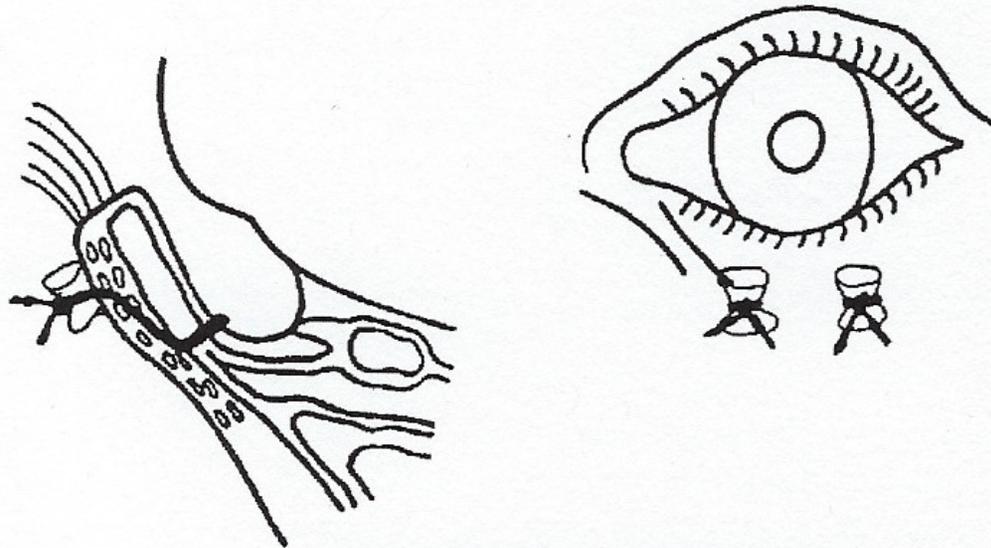


Figure 4 Stellwag, 1868.

**Stellwag (1868) modified Snellen's suture by directing the needle upwards and forwards from the inferior fornix below the tarsus through the orbicularis muscle to emerge from the skin , once only, 2 mm below the cilia. He too tied his suture over a bolster.**

**All these operations predate the universal acceptance of surgical antisepsis. Lister's first paper was not published until 1867.**

**Suppuration and the subsequent scarring it produced were regarded as prerequisites for success.**

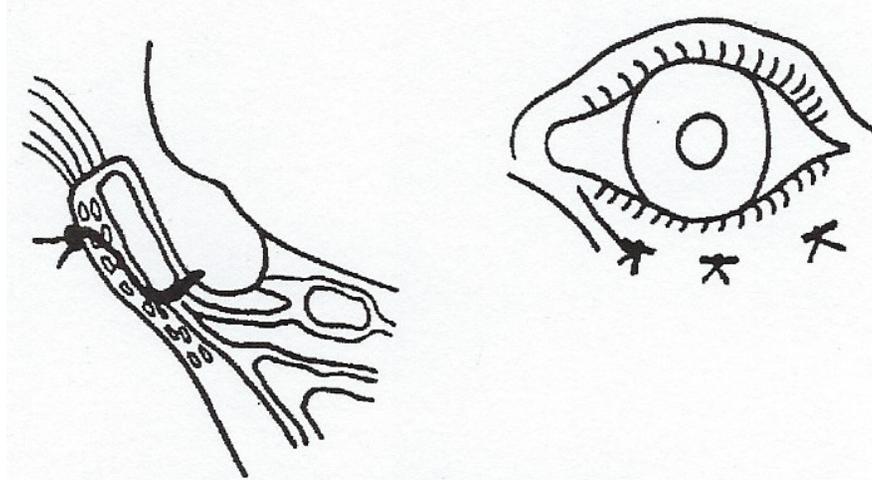


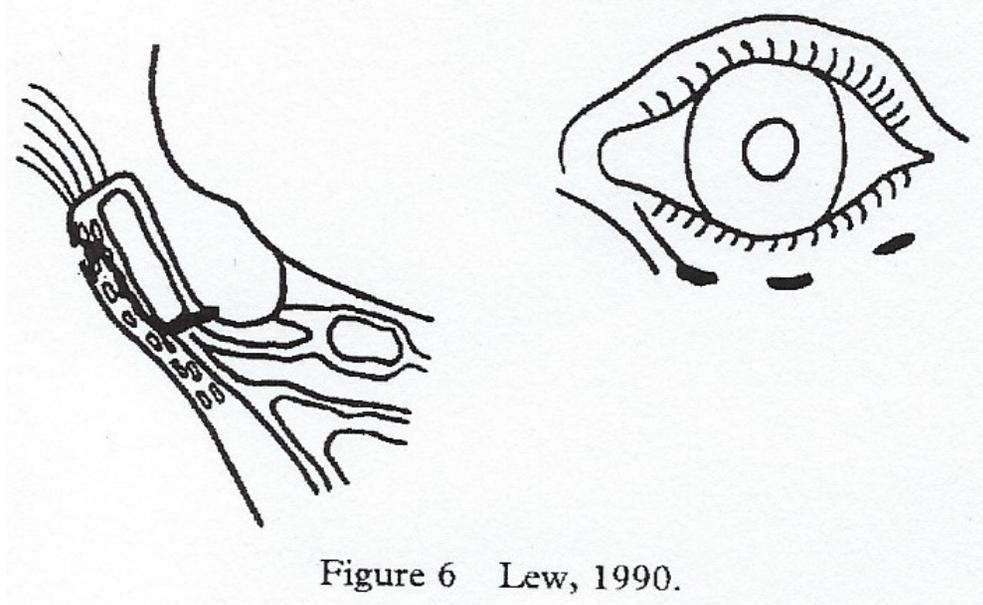
Figure 5 Quickert and Rathbun, 1971.

**Quickert and Rathbun (1971) modified Stellwag's suture by removing the bolster and using cat-gut instead of silk. This suture was absorbed over 2-3 weeks and provided an excellent technique for the immediate repair of acute spastic entropion, particularly when it occurred after large incision intracapsular or extracapsular cataract surgery. Some patients were permanently cured but in a large percentage the entropion recurred.**

# **5/0 Vicryl**

**The emergence of Vicryl sutures (5/0 sutures were used), during the nineteen eighties revolutionised the procedure.**

**Vicryl, because of its greater strength and slower absorption (8 weeks versus 2 weeks), allowed a tighter and more persistent suture, which prolonged and strengthened the repair process.**



**Lew (1990) raised three small vertical folds of skin 2 mm below the cilia on the medial, central and lateral lower lid. These were snipped with Westcott scissors to make small holes into which the knots could instantly be made to bury themselves.**

**A follow up of the first dozen cases was complication free except that one 98 year old patient did suffer a recurrence. In that patient the procedure was repeated with a permanent cure. One of the cures was in a patient where the entropion was secondary to cheek oedema following excision of a malignant parotid tumour.**

**The procedure is simple, quick and bloodless and ideal for use with local anaesthetic in rooms, but even more so an absolute boon when treating severely demented, bedridden patients in institutions.**