

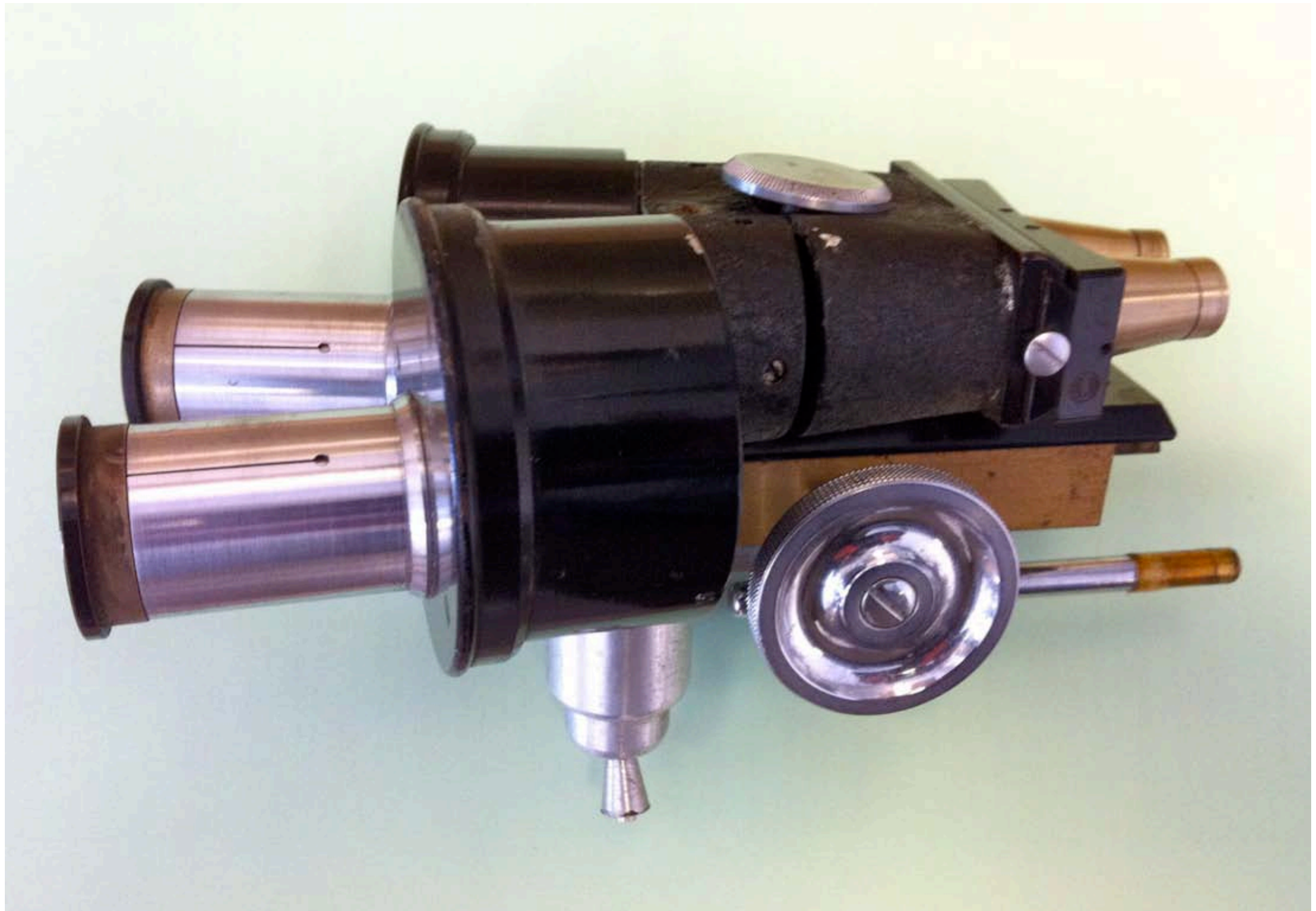
Geoffrey Sutherland legacy of an innovative surgeon



Geoffrey Sutherland was born 1916 at Wedderburn Victoria and trained at RVEEH and Moorfields Hospital. He developed a keen interest in mechanical, electrical and optical devices while serving in the RAAF 1943.

Collaborating with Professor Gerard Crock and Tom Cotter the photographer at RVEEH, he modified many existing optical instruments and invented a series of innovative and advanced instruments that were ergonomic and often employed composite metallurgy.

In 1970 Vitrectomy was being developed at RVEEH . Sutherlands' fine gauge rotating scissors and forceps were a valuable addition allowing intraocular manipulation and were also applied to newer techniques in the surgery of congenital cataract His association with neurosurgery allowed modification and development of new instruments. Many patents were taken out through the University of Melbourne for the micro instruments and diamond knives which were manufactured by Greishaber in Switzerland and Micra in England Much of his work was done in a beautifully equipped workshop at home. Tragically he died of complications following an endoscopy in 1980



Sutherland modified clinical biomicroscope

C.A.Buckley collection



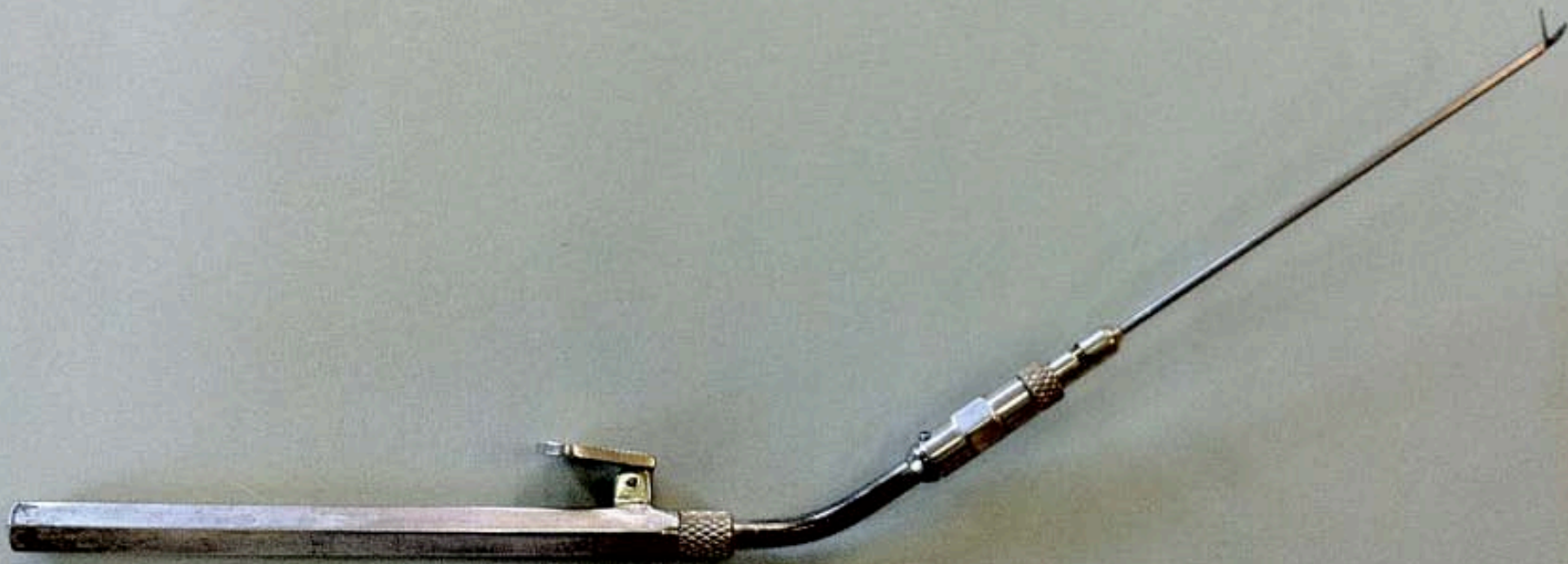
Binocular indirect ophthalmoscope modified after
Schepens 1960

C. A. Buckley collection

The Sutherland collection includes many of his diagnostic and surgical instruments .

He took a fresh look at existing instruments coincident with the introduction of the operating microscope. He refined and developed radical models that were an invaluable adjunct to the development of vitrectomy

Many of his instruments were modifications of
conventional tools
with improved angulation for access



229 Sutherland Neuro micro scissors



224C Storz Neuro long handled scissors

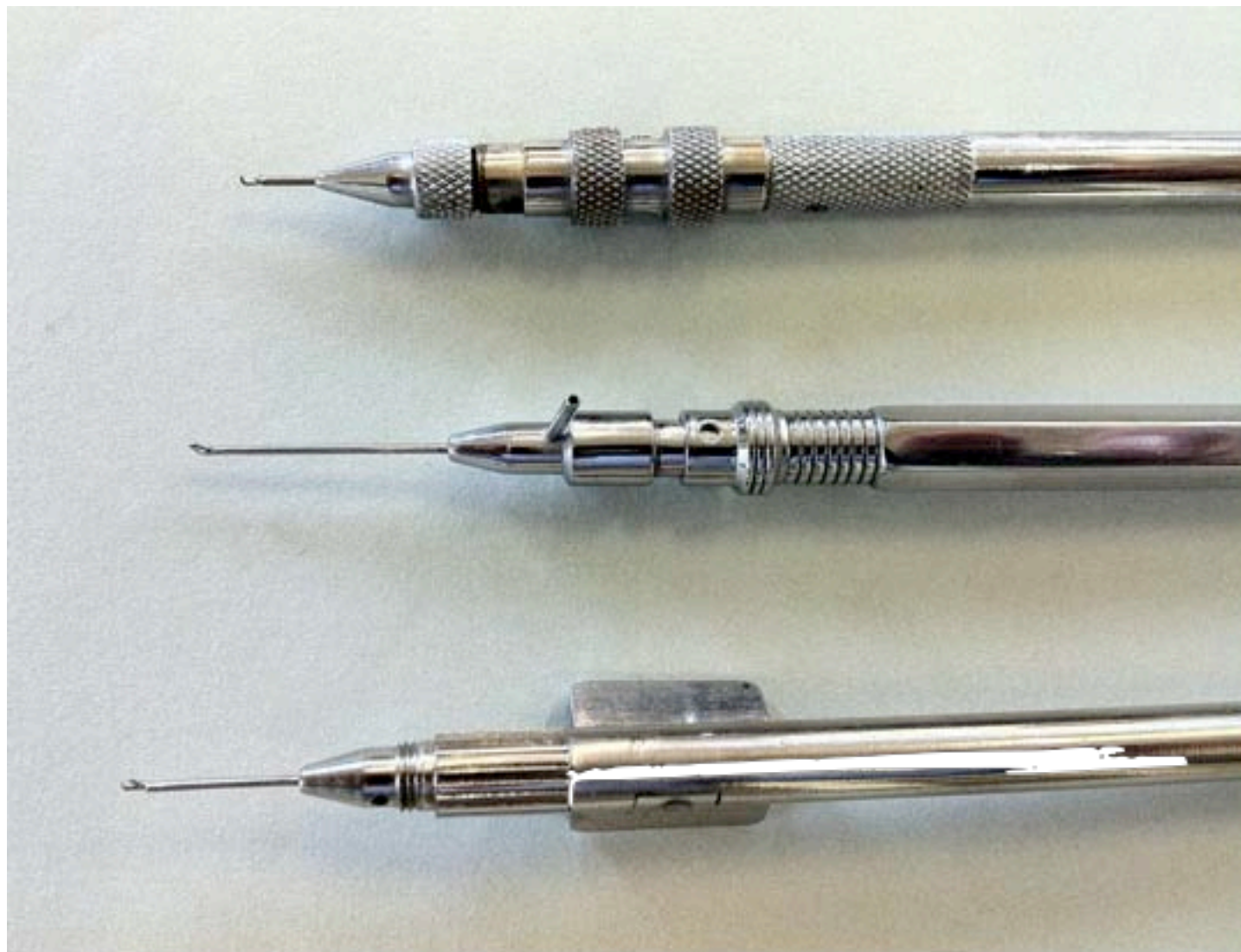


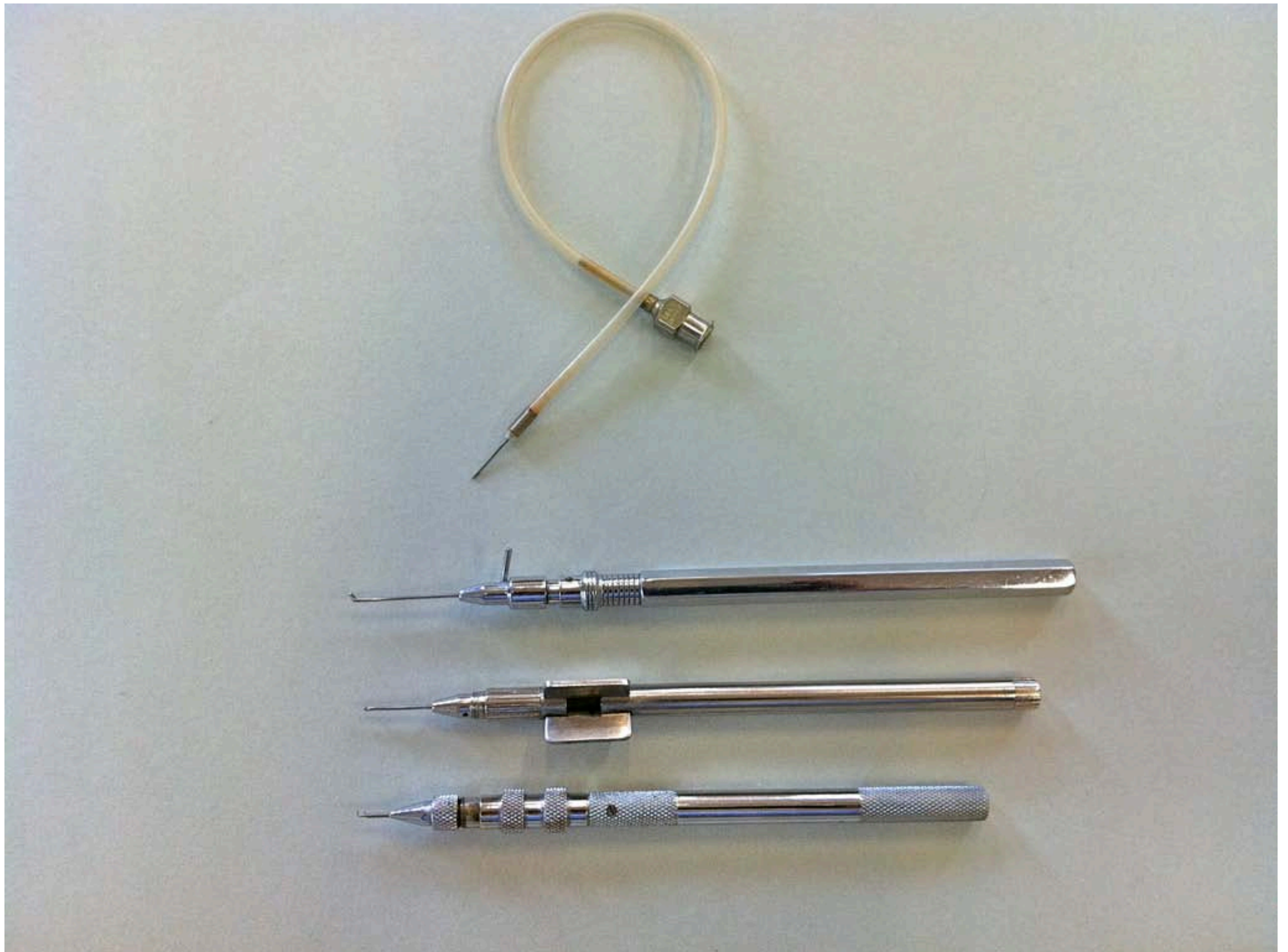
240C. Sutherland modified Inami knife



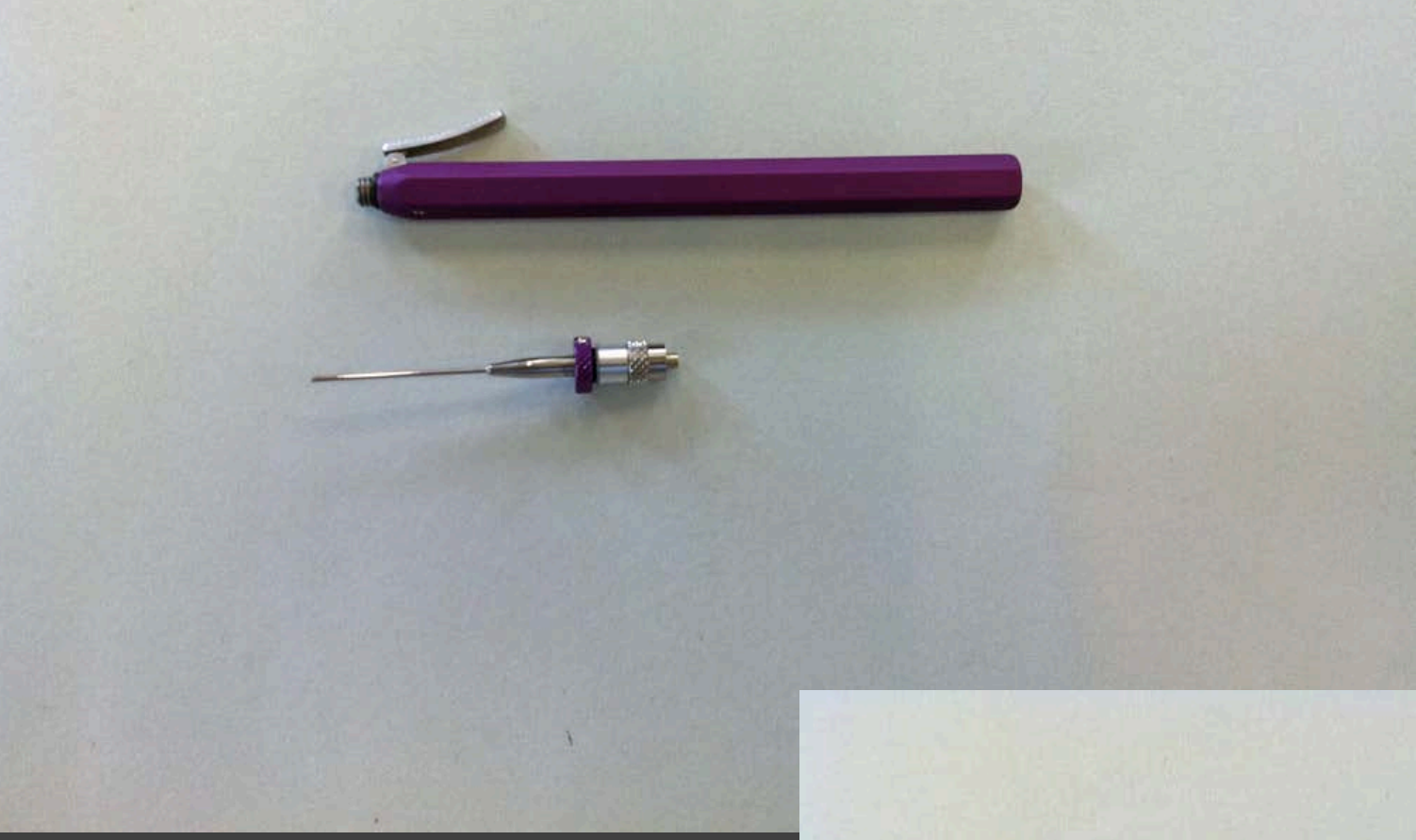
224C Sutherland synechia stripper

Sutherlands instruments embraced ergonomics and solved the difficulties in positioning for intraocular manipulation by incorporating irrigation and rotation in the design.

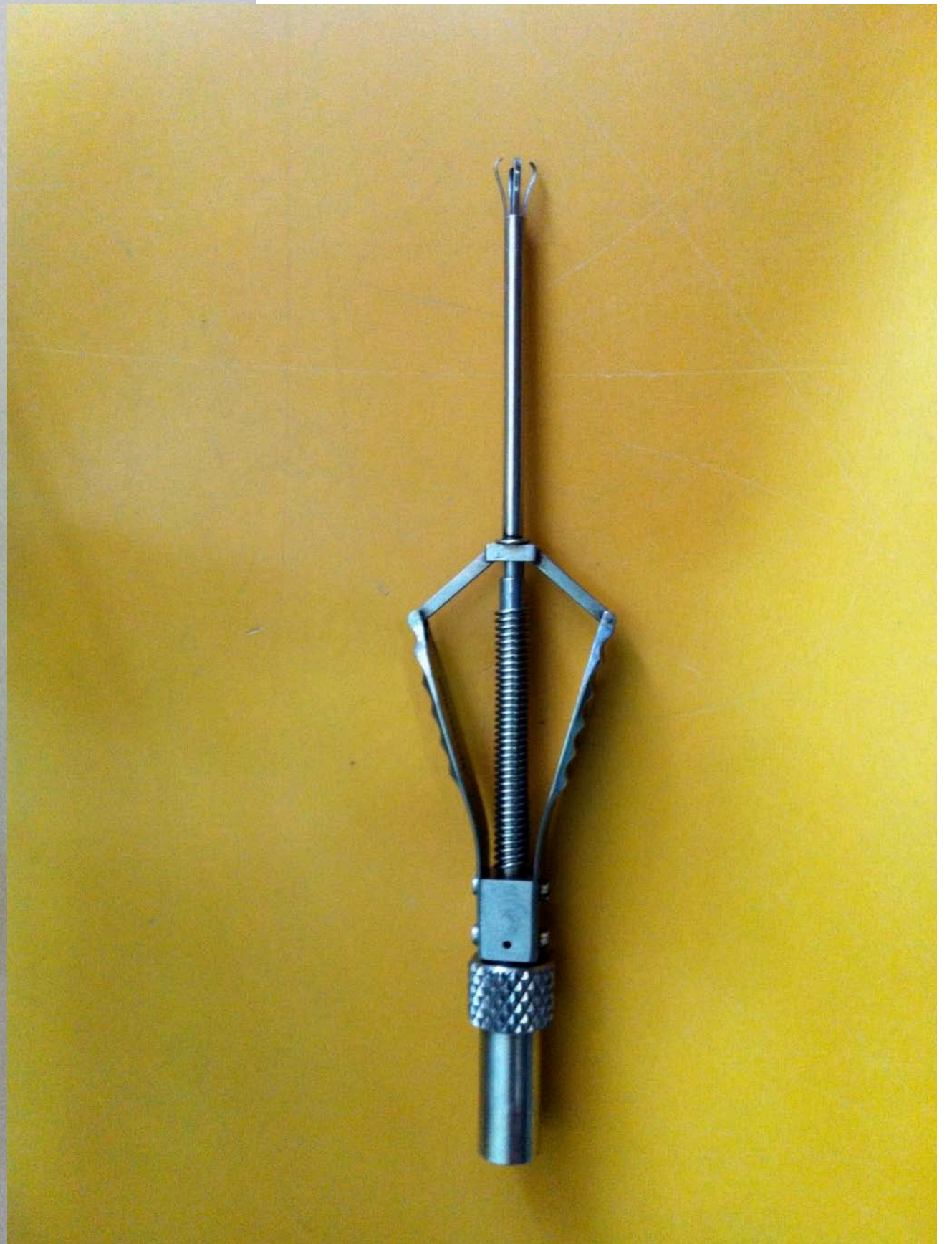
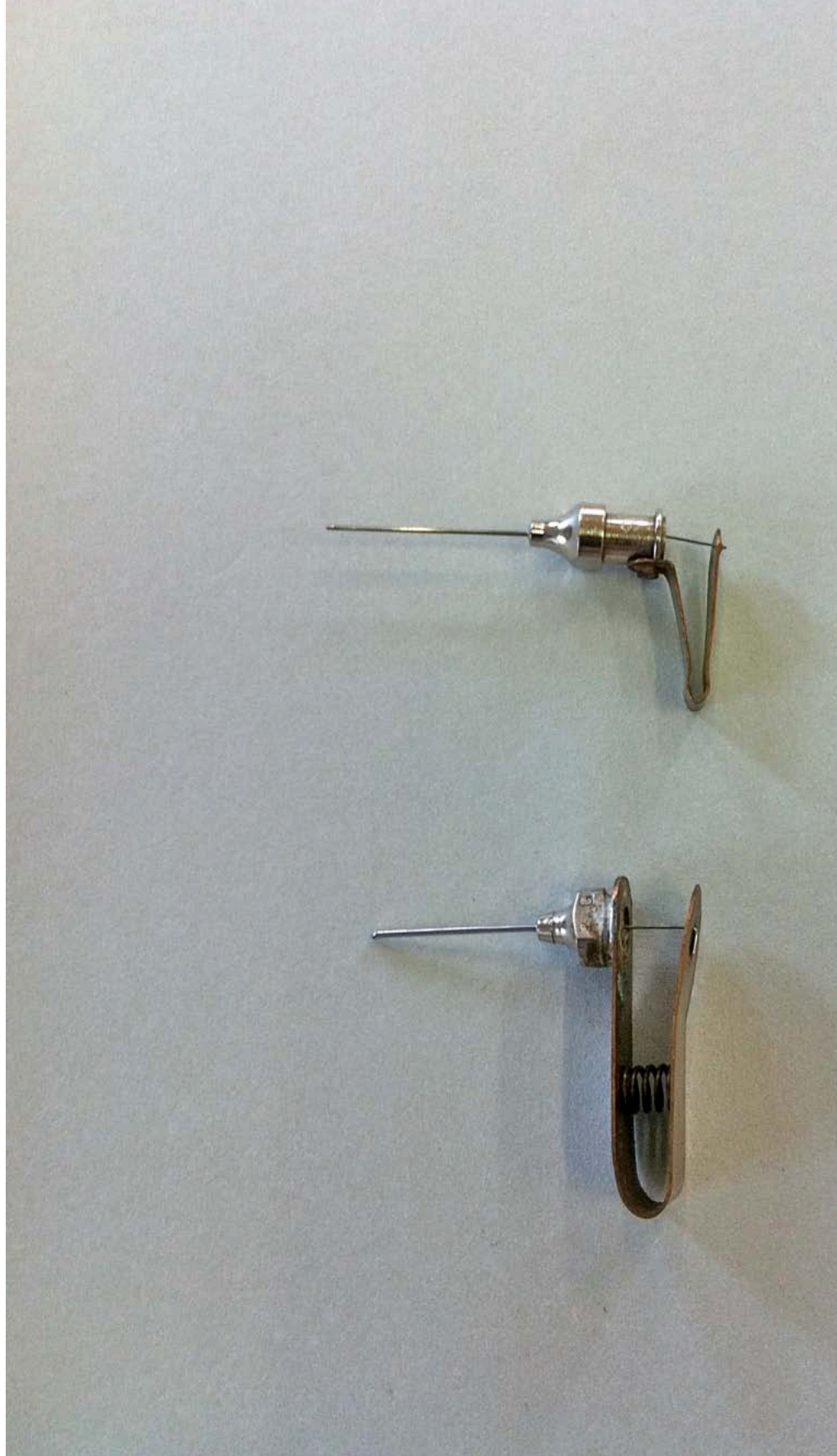




238 Sutherland prototype irrigating forceps



261C Sutherland Retinal tack introducer



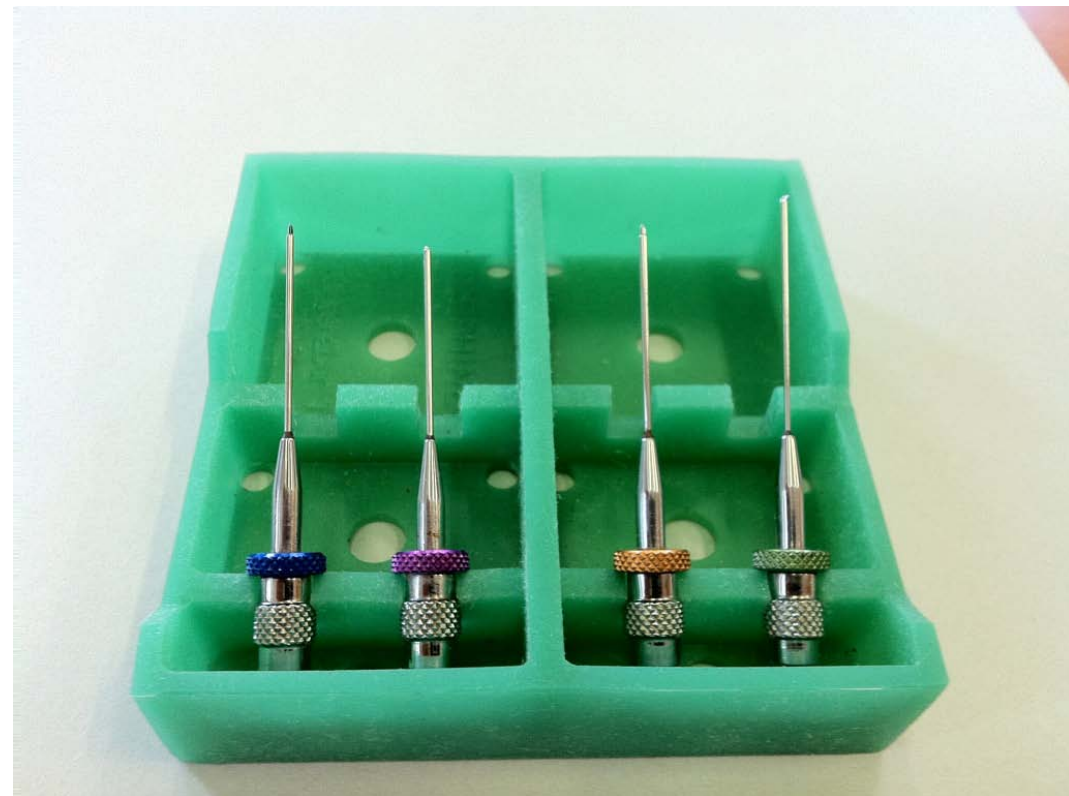
224C Sutherland micro snares
21gauge designed to hold fine non- magnetic foreign bodies

- The final production models by Grieshaber complemented the introduction of posterior vitrectomy



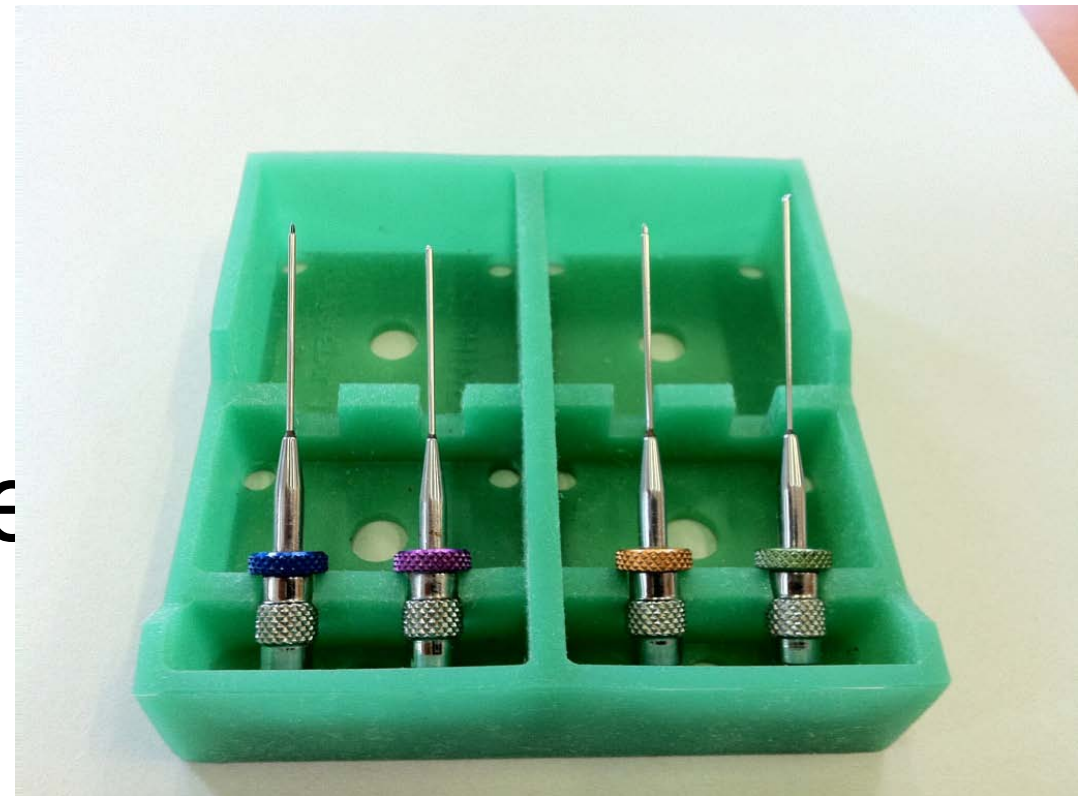
Evolution of endoscopic surgery

- Untill 1970 techniques to excise pupillary membranes were open sky or discission and were unsatisfactory
- Sutherland microscissors and forceps with anterior chamber infusion allowed improved control

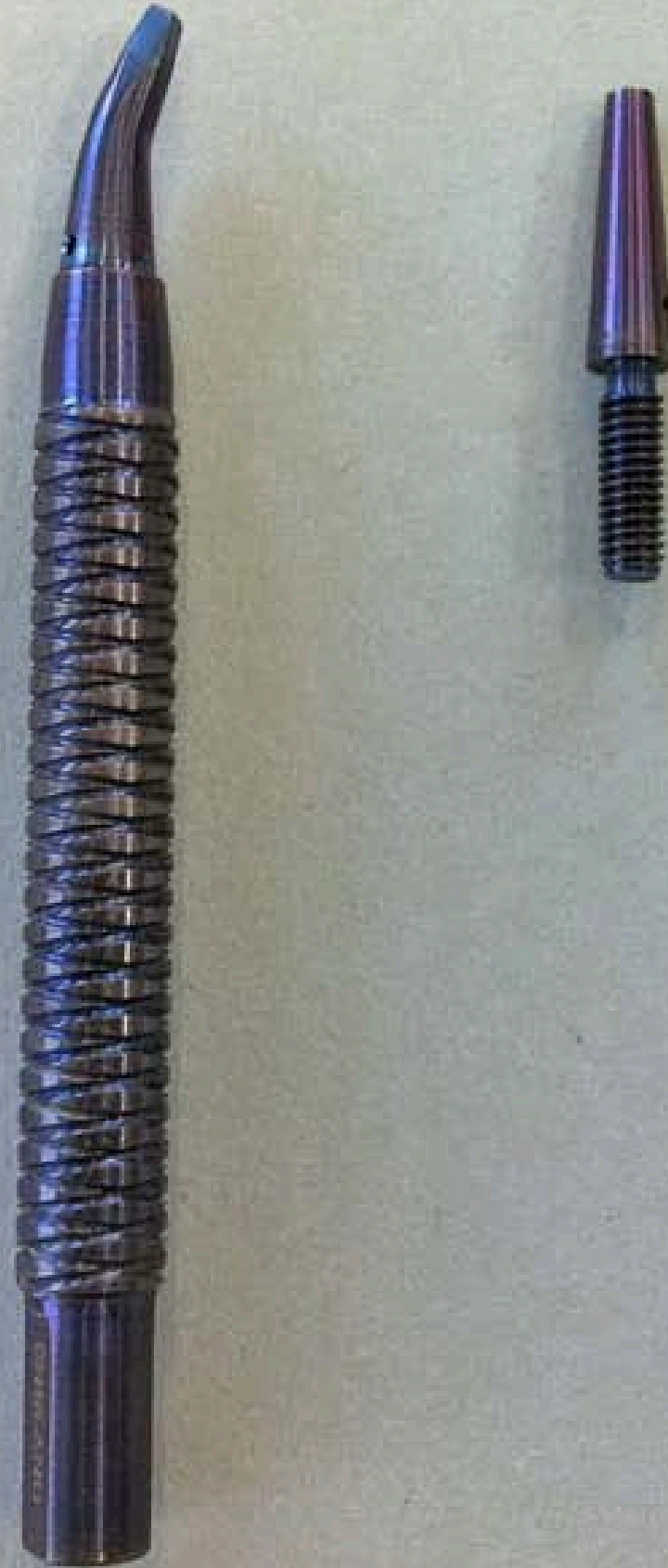


- Manipulation required incorporating a rotating head and 21g access
- Pars plana and limbal approaches were used

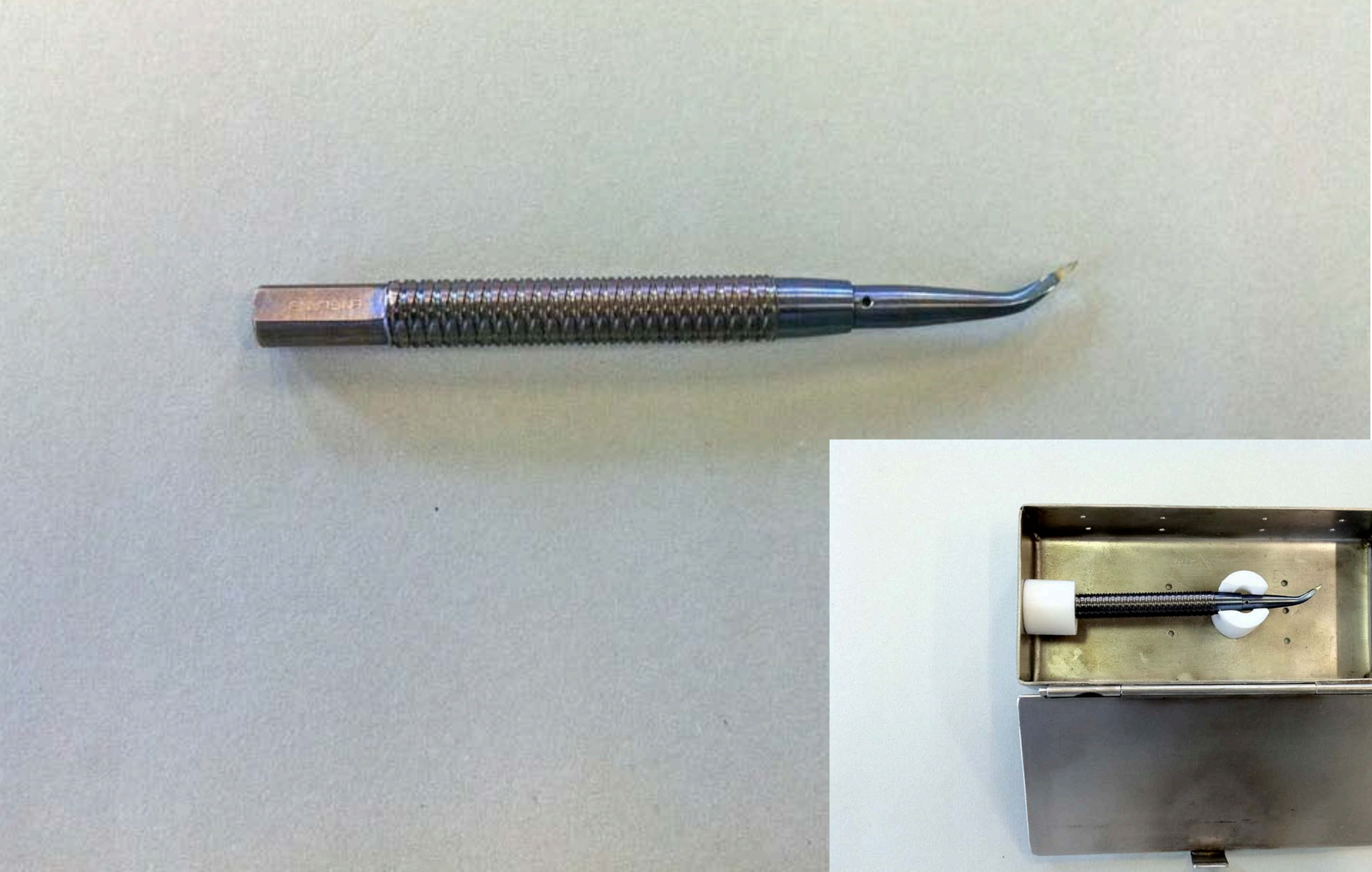
- Early production he



prototype
titanium
diamond knife



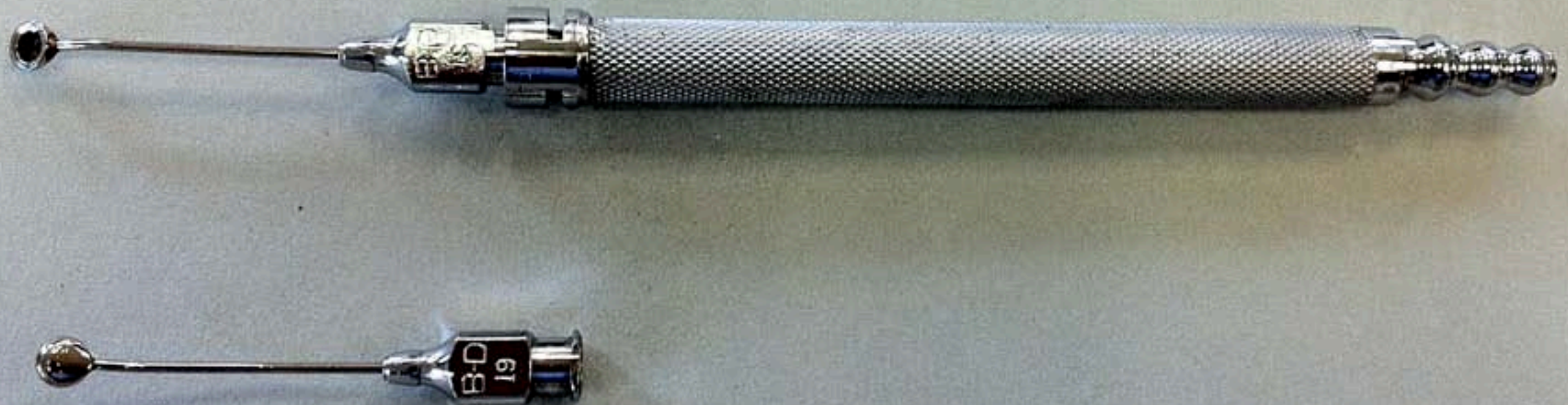
239C Sutherland Micra diamond knife



224C prototype diamond knife



228 Sutherland motorized rust remover 1960



234C Sutherland head for electric Erisophake for intracapsular cataract surgery



46c Surgical instruments used by G. Sutherland C1960