7.0 Figures

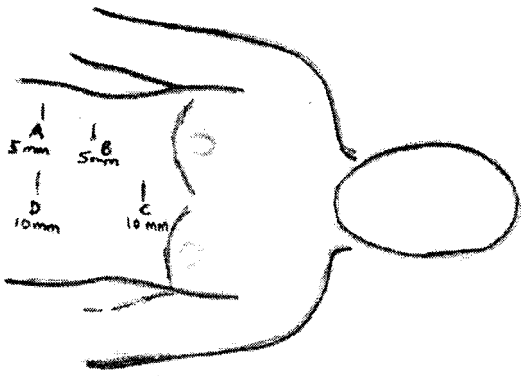


Figure 1. Incisions during Laparoscopic Cholecystectomy

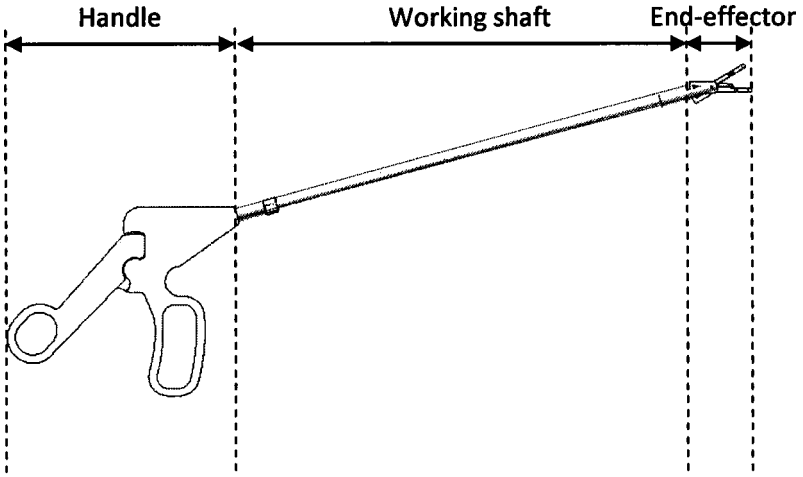


Figure 2. A typical instrument used in LC procedures

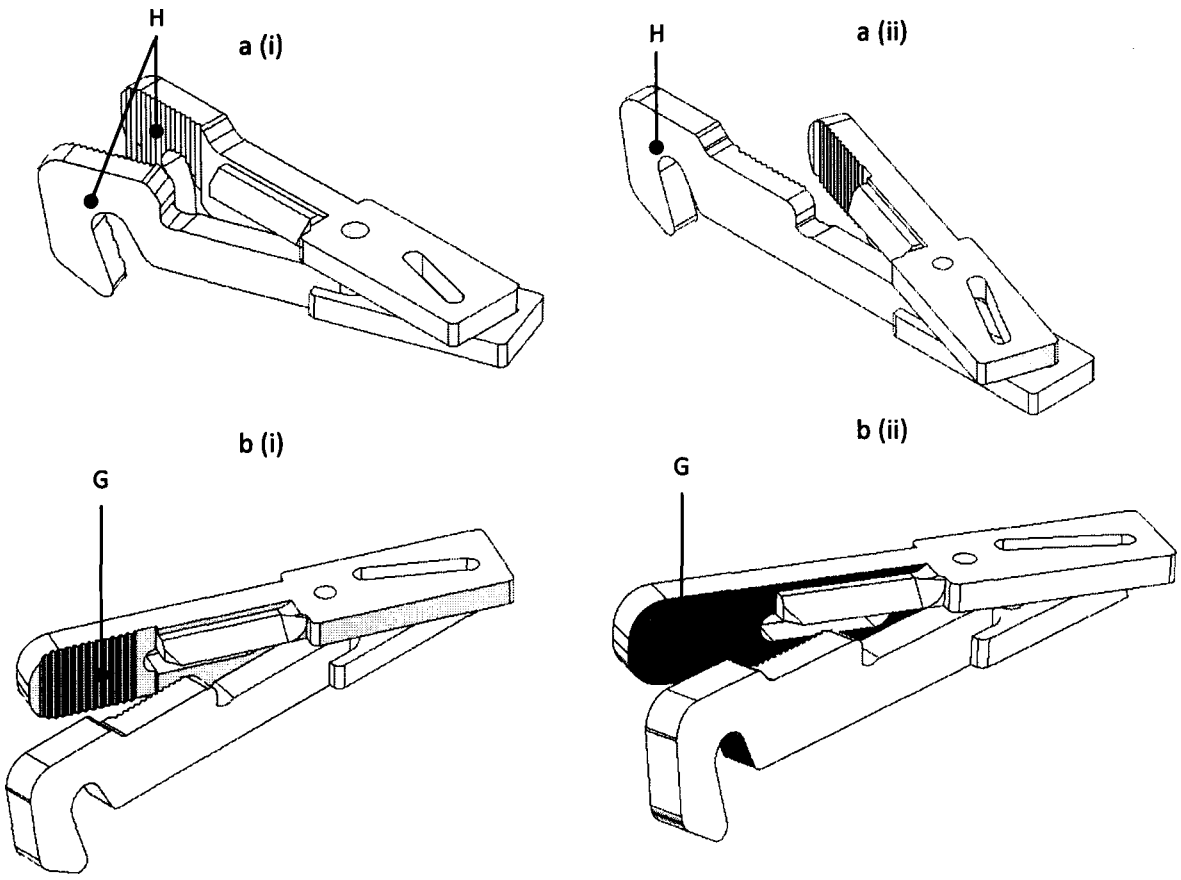


Figure 3. Different Embodiments of H (Figure a (i) and a (ii)) and G (Figure b(i) and b (ii))

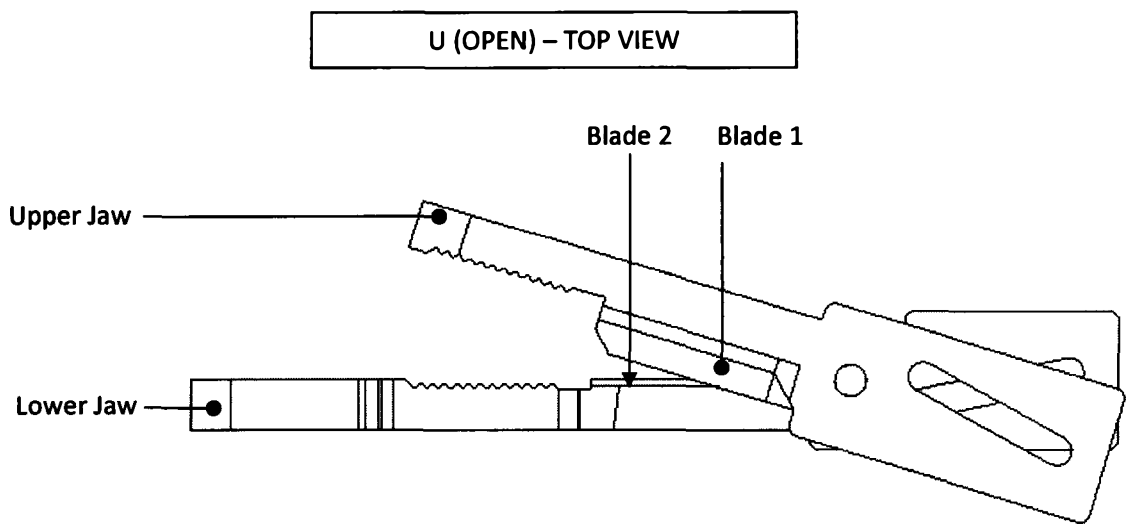


Figure 4. S_U with the blades open (top view)

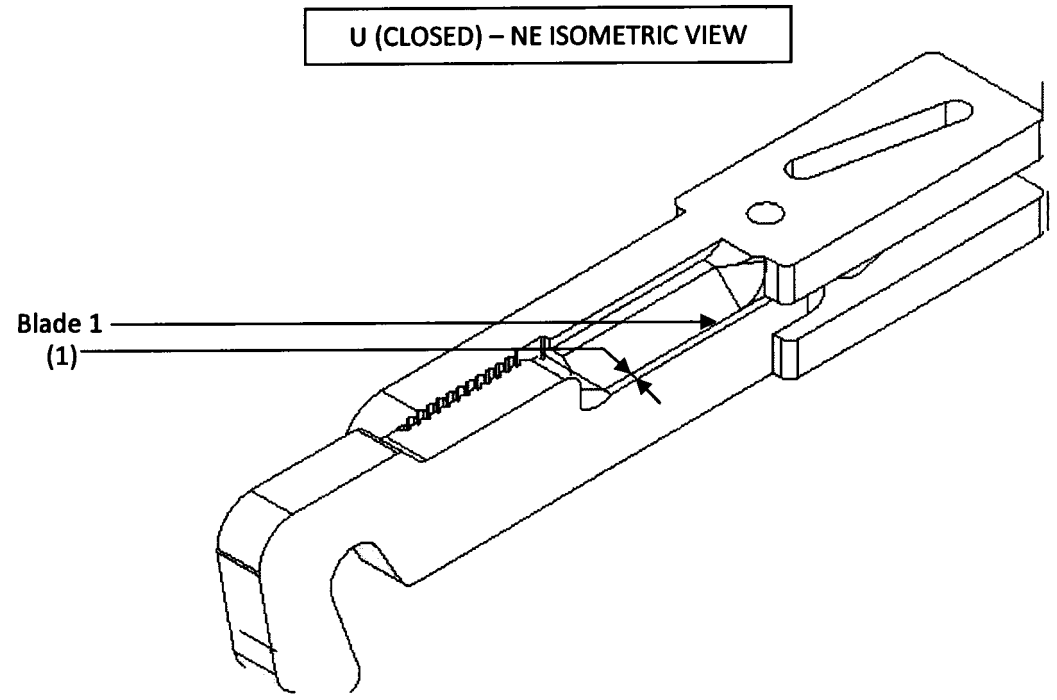


Figure 5. S_U with the blades closed and showing detail (1)

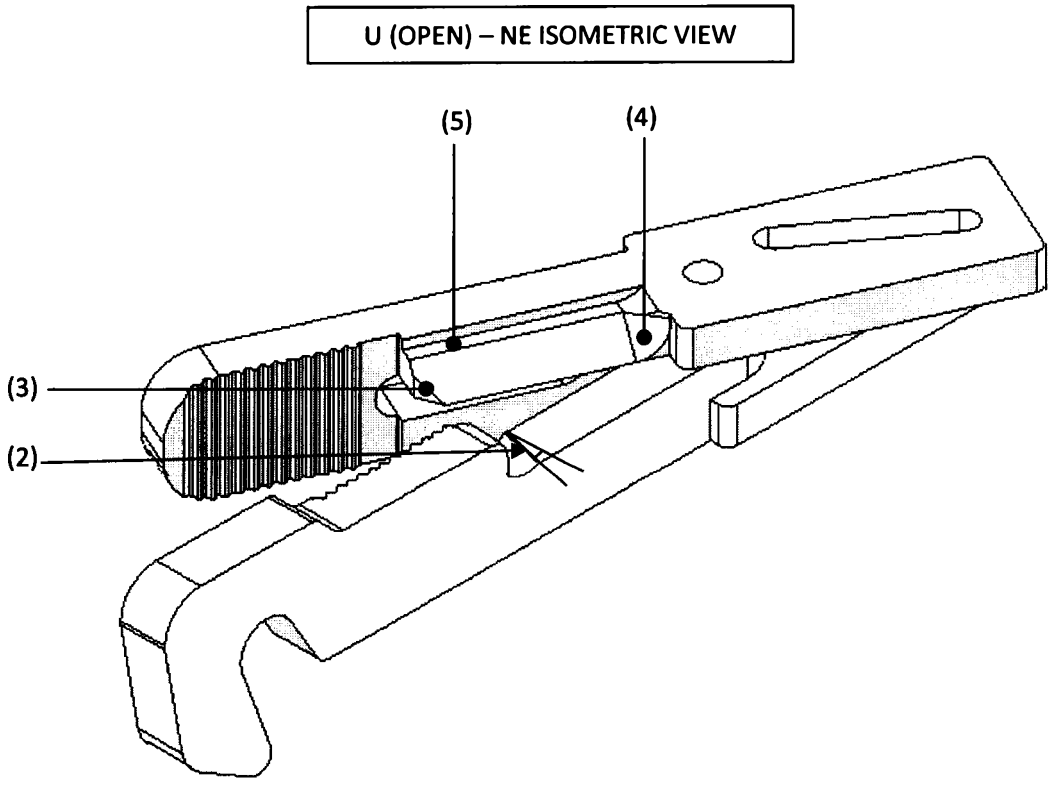


Figure 6. S_U with open blades showing details (2), (3), (4) and (5)

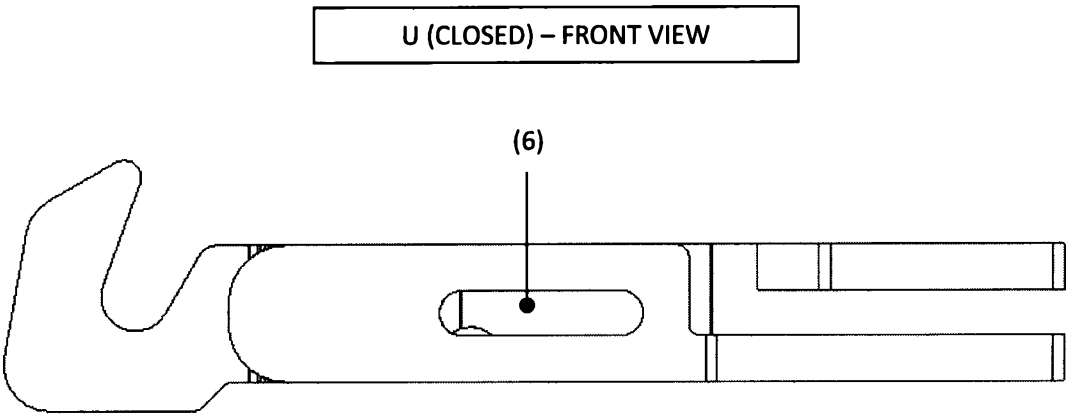


Figure 7. U showing detail (6)

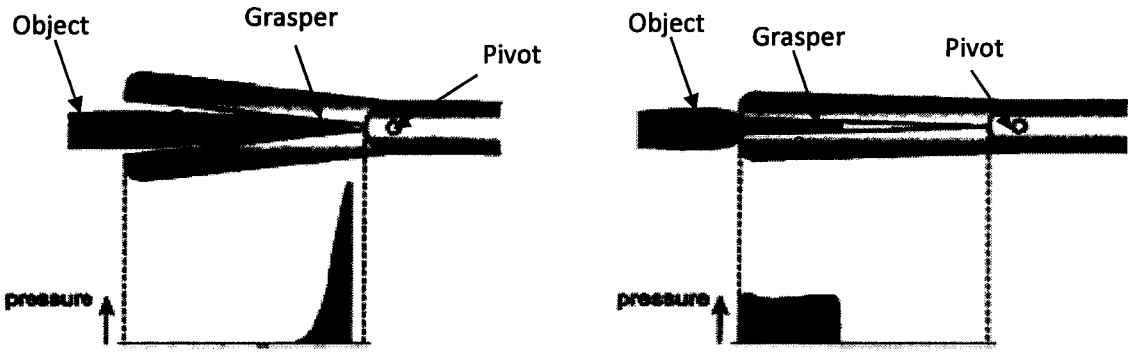


Figure 8. Pressure on Object when (a) Grasper is placed close to pivot (b) Grasper is placed away from the pivot (adopted from De Visser 2003)

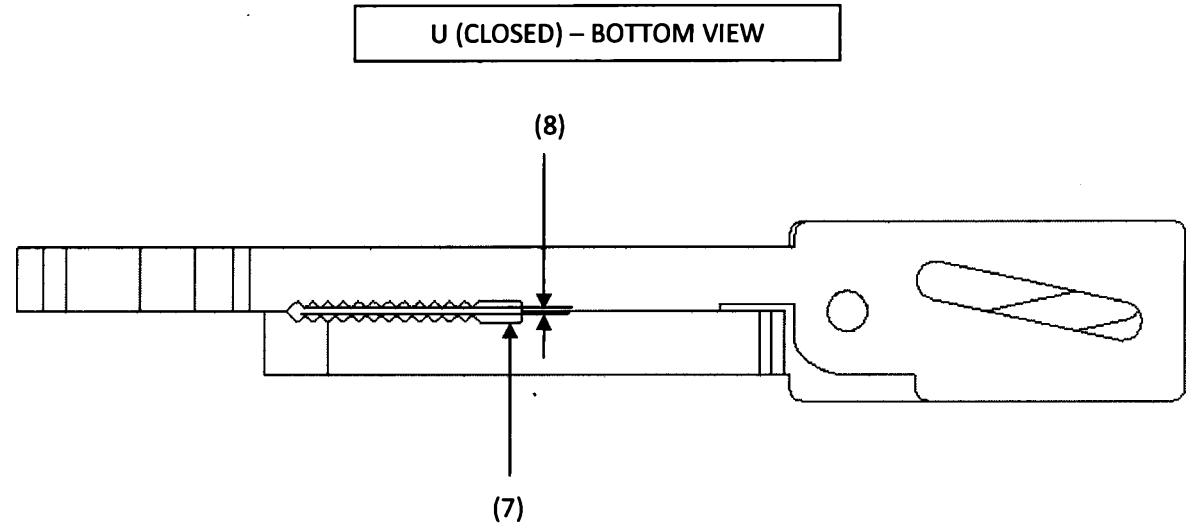


Figure 9. G_U with details (7) and (8)

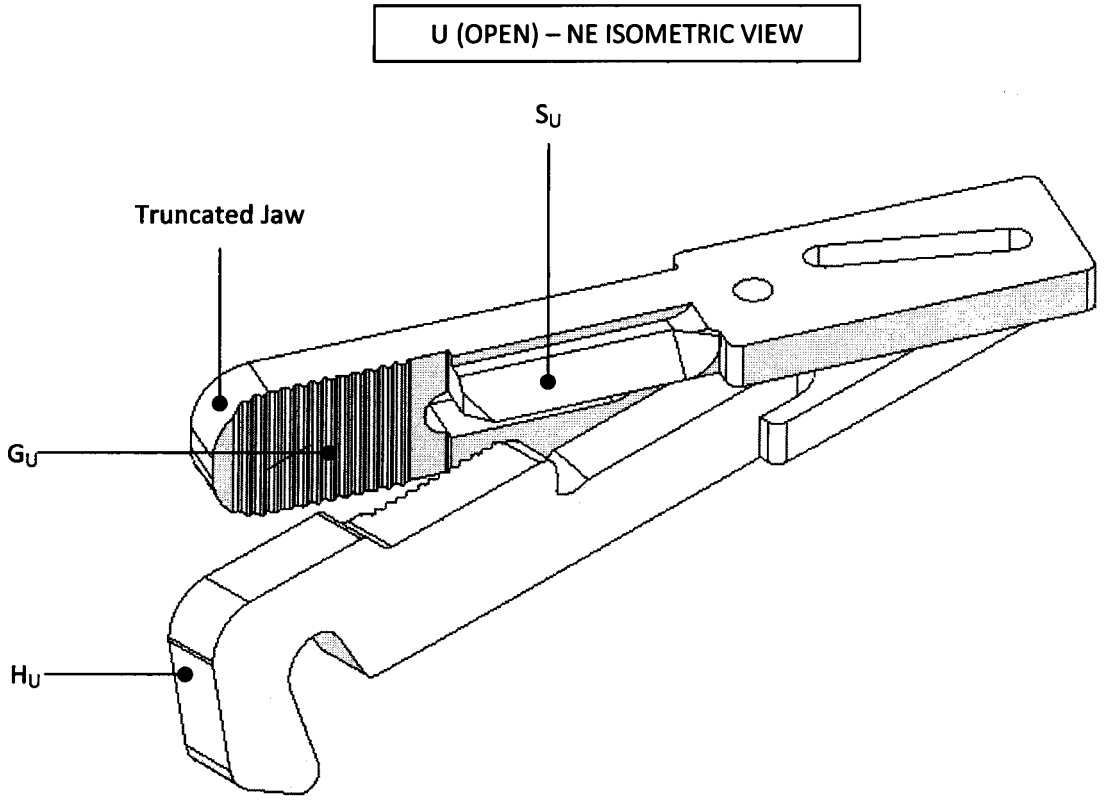


Figure 10. Placement of H_U and truncated jaw

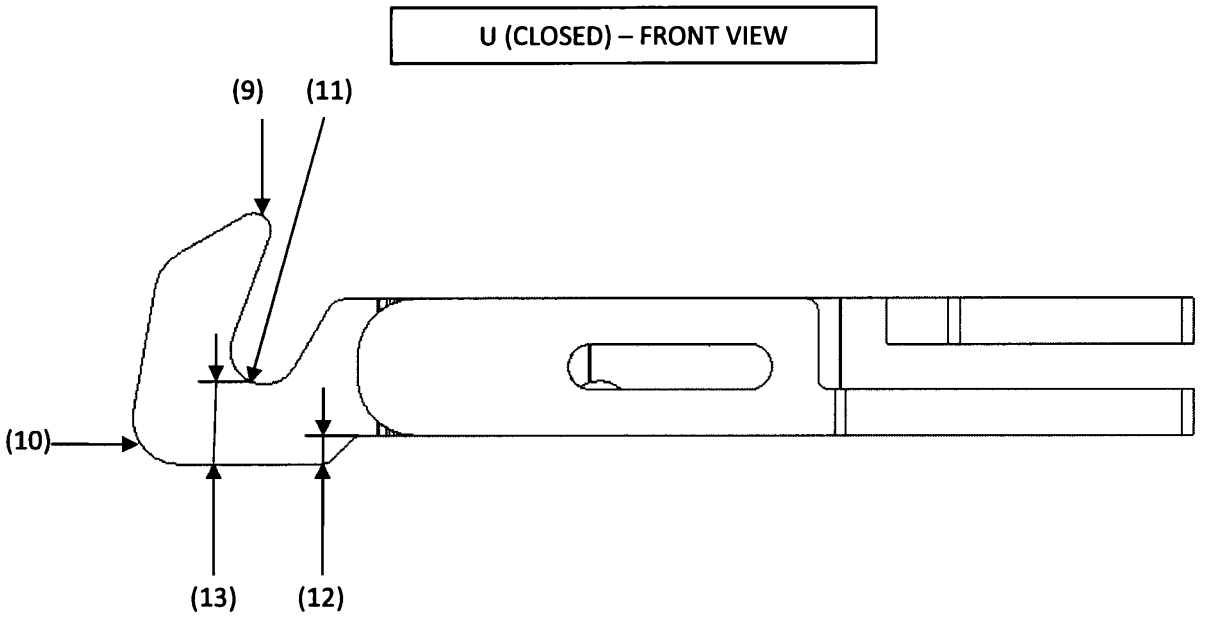


Figure 11. H_U with details (9), (10), (11), (12) and (13)

7.0 Tables

Table 1. Instruments passed through the different incisions during a typical Laparoscopic Cholecystectomy MIS operation

Incision A	Incision B	Incision C	Incision D
G	G	G	L
		H	
		CA	
		S	
		H	
		CA	
		S	
		H	
		CA	
		H	
		G	

Table 2. Comparison between existing single functional instruments and the Invention

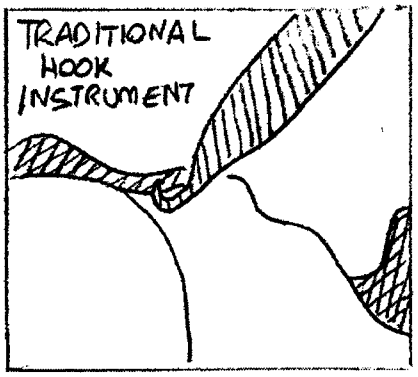
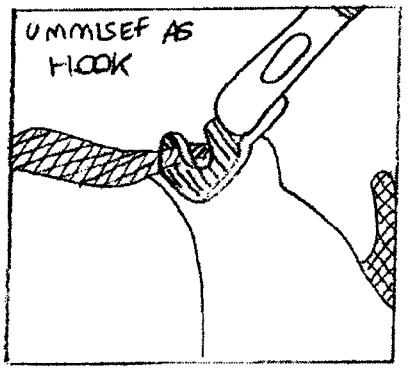
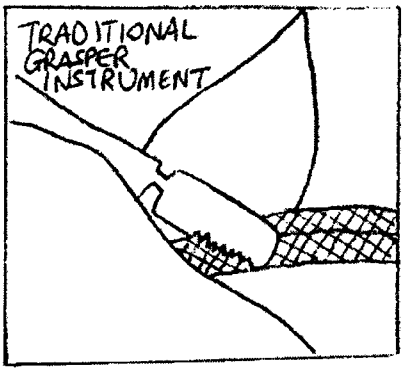
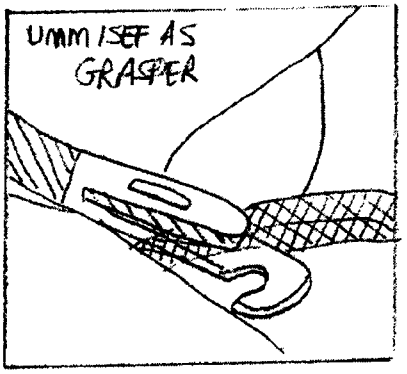
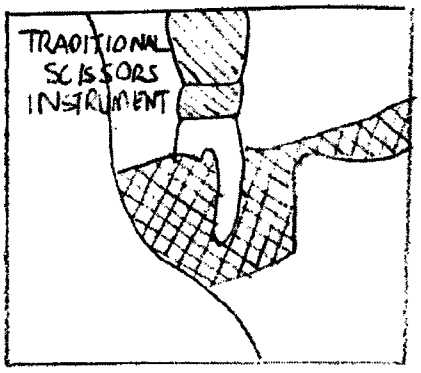
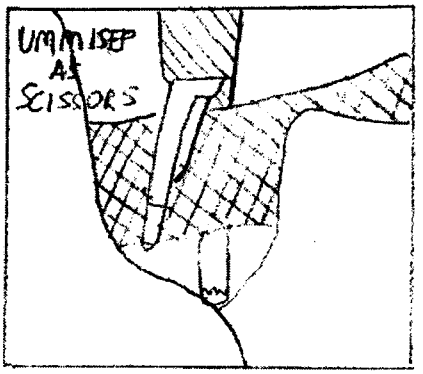
Existing Single Functional Instruments	The Invention
	
	
	

Table 3. Comparison between the numbers of swaps carried out using single-functional instruments vs. the claimed combination

	Incision C (using single-functional instruments)	Incision C (using claimed multifunctional instrument)
	G	U
	H	
	CA	CA
	S	U
	H	
	CA	CA
	S	U
	H	
	CA	CA
	H	U
	G	
Number of swaps	**10**	**6**

8.0 References

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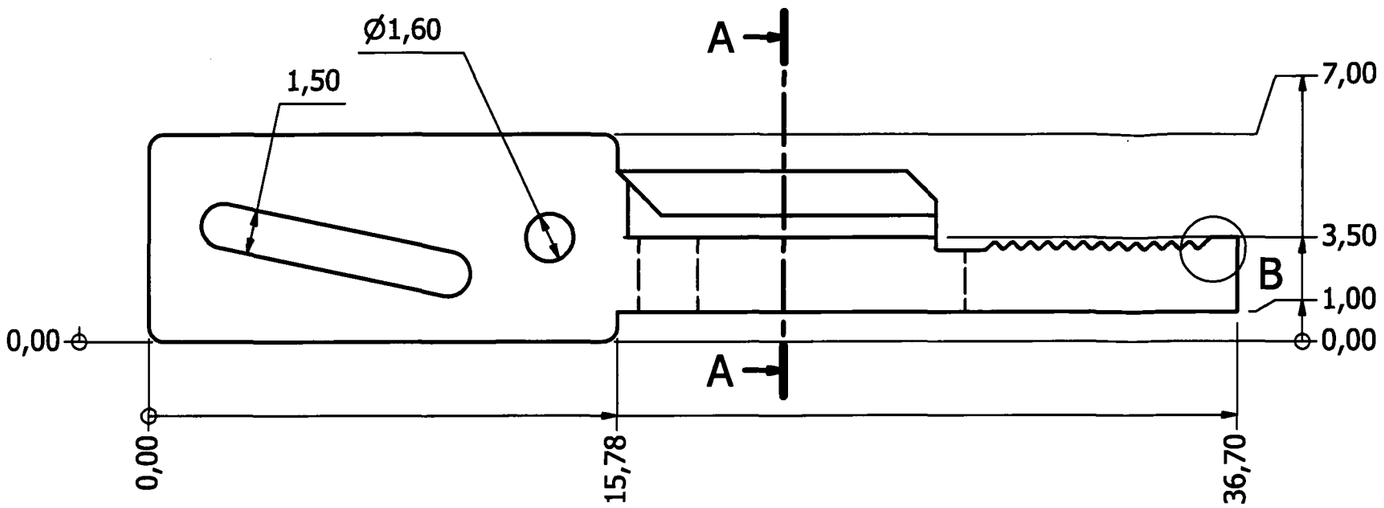
9.0 Appendix A – Detailed Drawings



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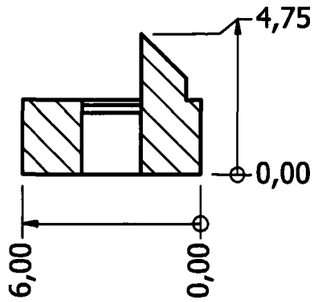

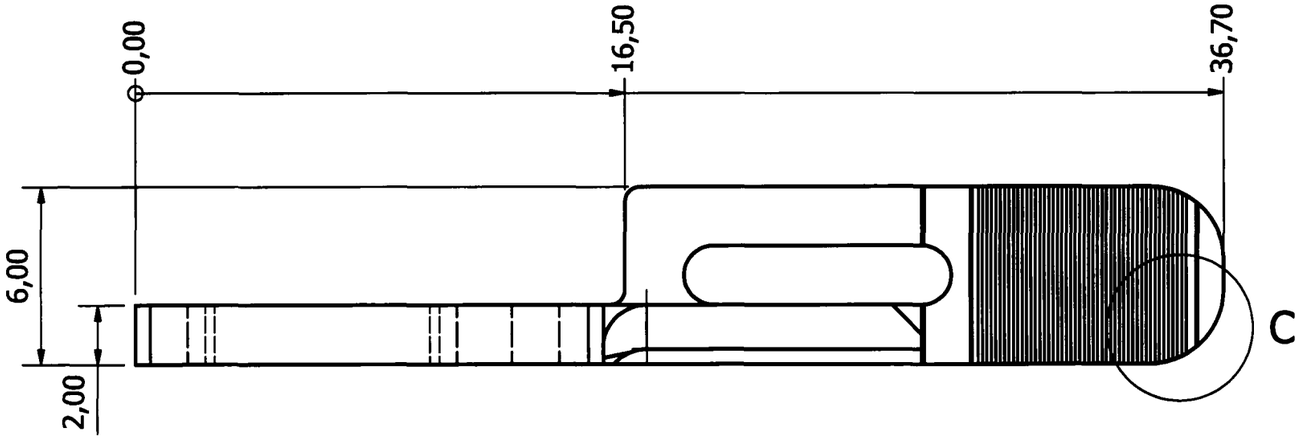

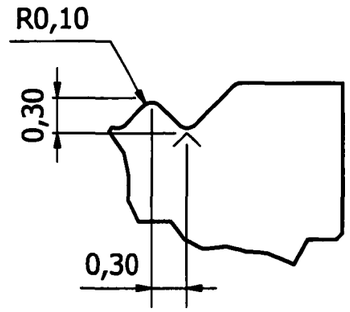

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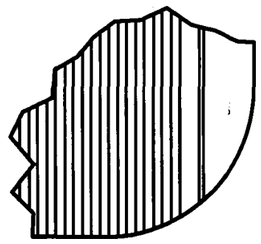

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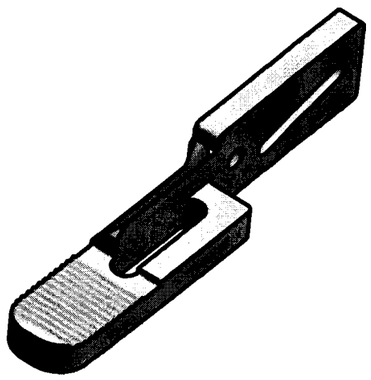

Designed by	Checked by	Approved by	Date		Date	
UMMISEF Inventors	John. P. Borg	Jonathan C. Borg			29/01/2010	

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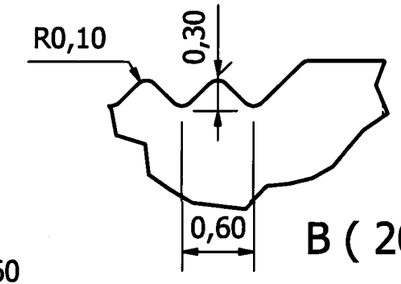

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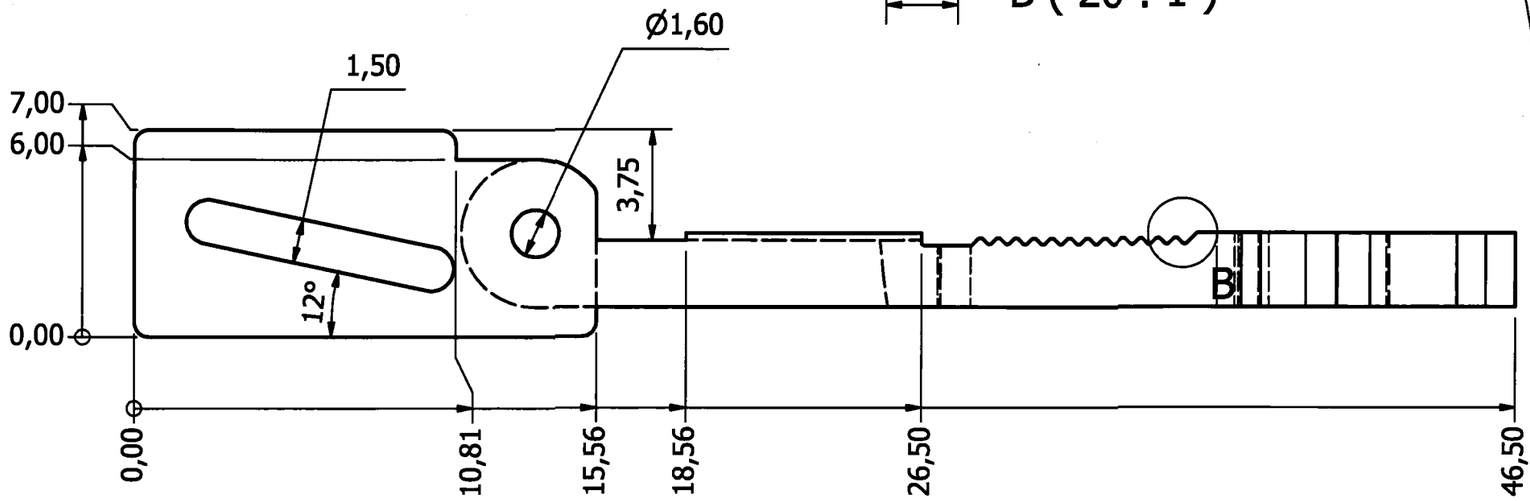

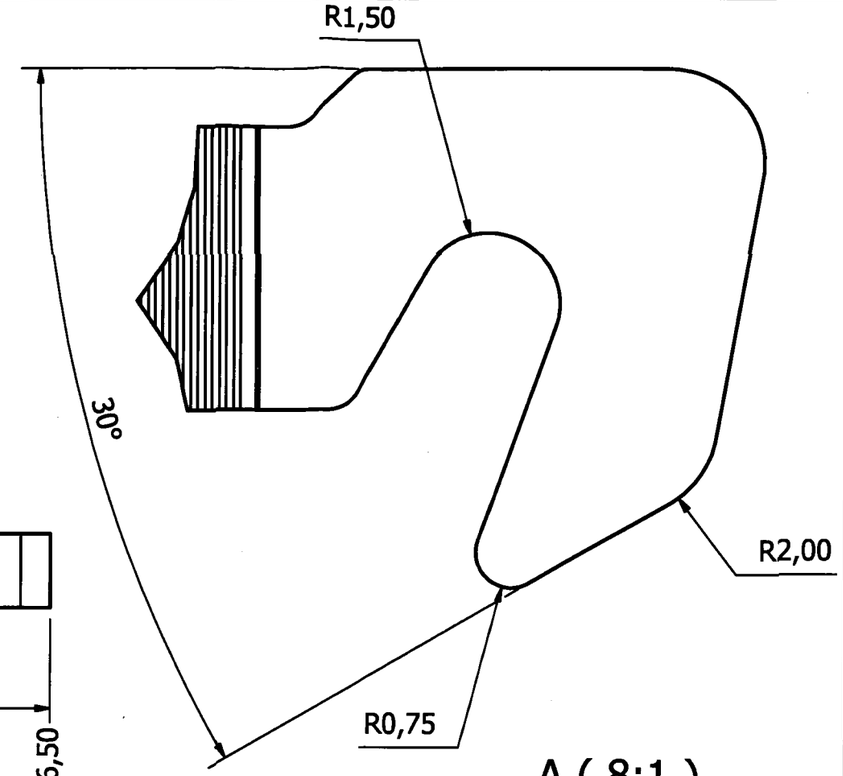

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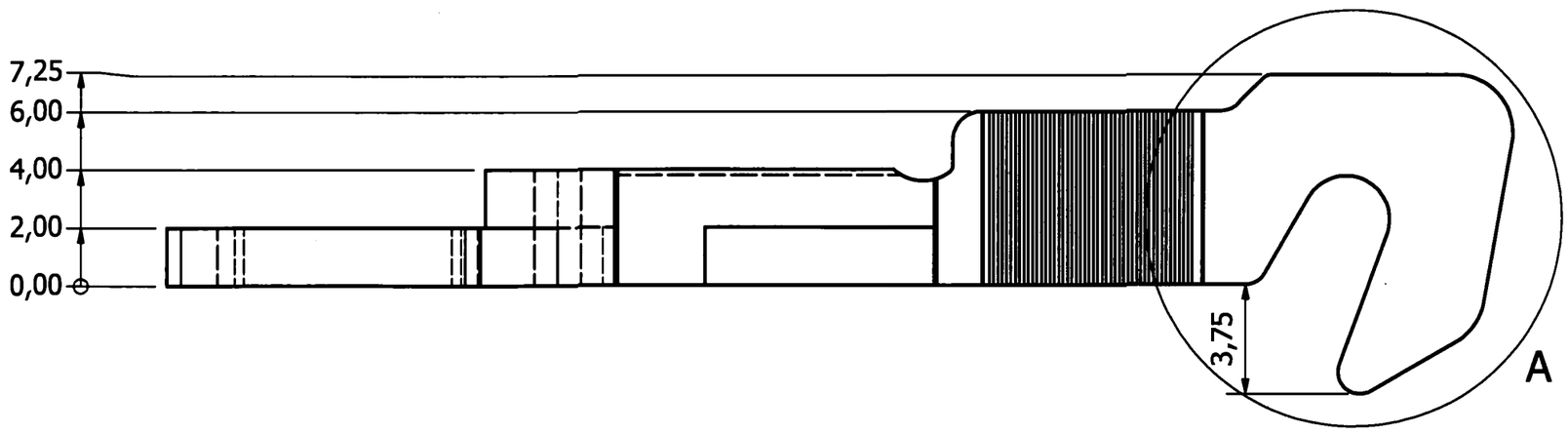

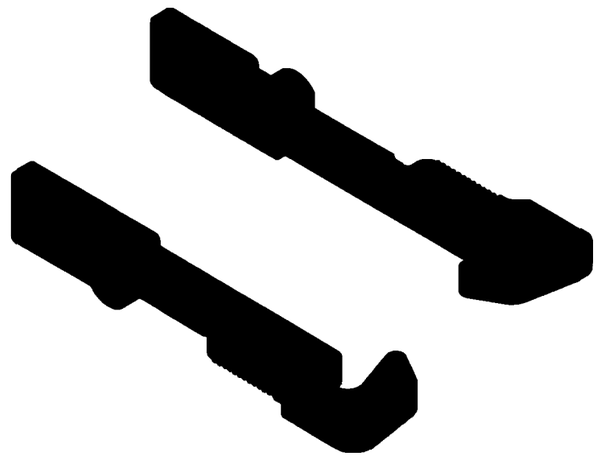

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