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#### US005307976A

## United States Patent [19]

Olson et al.

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# [54] LINEAR STAPLING MECHANISM WITH CUTTING MEANS

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[22] Filed: Jul. 20, 1992

#### Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 779,436, Oct. 18, 1991, abandoned.

## [56] References Cited

U.	S. PAI	ENI DOCUMENTS	
000	7/1088	Barbar at al	

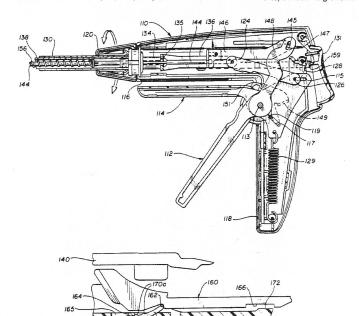
4,754,909	7/1988	Barker et al 227/19
4,784,137	11/1988	Kulik et al 227/19 X
4,892,244	1/1990	Fox et al 227/19 X
4,955,959	9/1990	Tompkins et al 227/180 X
5,040,715	8/1991	Green et al 227/8 X
5,071,052	12/1991	Rodak 227/19 X
5,170,925	12/1992	Madden 227/19 X

Primary Examiner—Rinaldi Rada Attorney, Agent, or Firm—Paul A. Coletti

### ABSTRACT

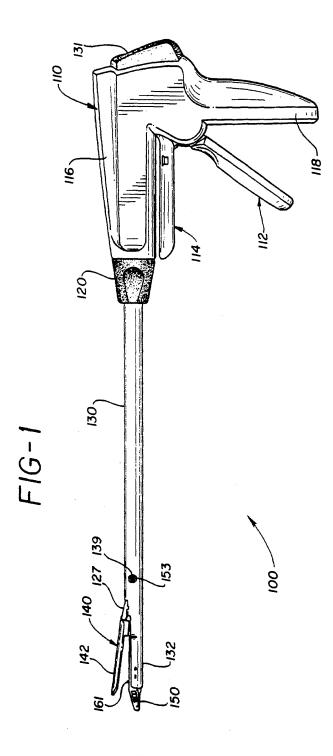
A stapler mechanism is described which contains a stapling assembly, and anvil assembly, firing means and knife means. These means are activated by a firing trigger. The anvil assembly is closed upon the stapling assembly by means of a closure trigger. The firing trigger is inoperable until the closure trigger has been activated. Another mechanism in the stapler is capable of locking the closure trigger after use so it does not spring open inadvertently before use of the firing trigger. Additionally, the stapler mechanism allows forward motion of both triggers and also is capable of allowing reverse motion of the closure trigger to open the mechanism.

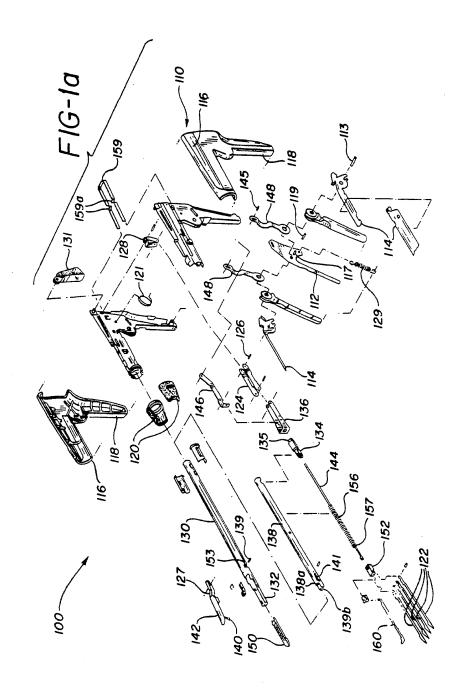
### 22 Claims, 18 Drawing Sheets

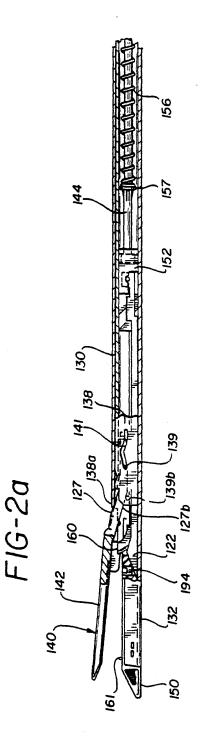


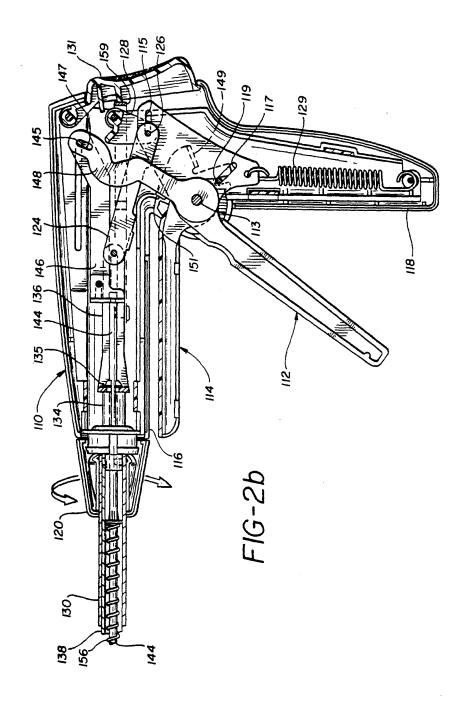












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