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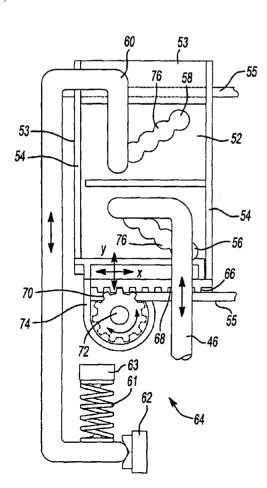
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[Continued on next page]

(54) Title: CONTACT TRIP MECHANISM FOR NAILER



(57) Abstract: A contact trip assembly for a power nailer, wherein a contact member includes a curved portion that loops rearwardly towards a handle of the nailer. Also provided is an adjustment assembly including an adjustment plate and a pinion gear, a trigger that is slidably engageable within a housing of the tool, a trigger lock including a ring element, an anti-discharge mechanism including a stop member, and a contact trip lock.



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Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

 as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

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International application No.

PCT/US05/11284

A. CLASSIFICATION OF SUBJECT MATTER				
IPC: B25C 7/00(2007.01);B27F 7/17(2007.01)				
USPC: 227/8,142				
	o International Patent Classification (IPC) or to both na	etional alocaification and IDC		
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B. FIELDS SEARCHED				
				
Minimum documentation searched (classification system followed by classification symbols)				
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
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Electronic da	ta base consulted during the international search (nam	e of data base and, where practicable, search	terms used)	
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C. DOC	UMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where a	annranriate of the relevant necessity	Delene de 1 ' N	
		• • •	Relevant to claim No.	
Α	US 5,219,110 A (MUKOYAMA) 15 June 1993 (15.	.06.1993), See entire document.	1-10	
Α	I US 5 715 982 A (ADACHI) 10 February 1009 (10 0	12 1008). Saa antina da	1.10	
	A US 5,715,982 A (ADACHI) 10 February 1998 (10.02.1998), See entire document.			
Α	US 6,024,267 A (CHEN) 15 February 2000 (15.02.2	2000) See entire document	1-10	
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Α	US 6,186,386 A (CANLAS et al.) 13 February 2001	(13.02.2001), See entire document.	1-10	
		·		
X, P US 6,783,044 A (PERRA et al.) 31 August 2004 (31.0		.08.2004), See entire document.	1 and 9	
V D				
Y, P US 6,866,177 B1 (CHEN) 15 March 2005 (15.03.2005)		005), See entire document.	1 and 9	
Further	documents are listed in the continuation of Box C.	See patent family annex.		
* Special categories of cited documents: "T" later document published after the international filing date or priority			national filing date or priority	
•		date and not in conflict with the applica	tion but cited to understand the	
"A" document particular:	defining the general state of the art which is not considered to be of relevance	principle or theory underlying the inven	tion	
"y E" earlier application or patent published on or after the international filing date.		"X" document of particular relevance; the cl		
	lication or patent published on or after the international filing date	considered novel or cannot be considere when the document is taken alone	d to involve an inventive step	
	which may throw doubts on priority claim(s) or which is cited to			
establish the publication date of another citation or other special reason (as specified)		"Y" document of particular relevance; the cli- considered to involve an inventive step.		
"O" document	referring to an aral disalogues are a little and the	combined with one or more other such d	locuments, such combination	
	referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in the	art	
"P" document published prior to the international filing date but later than the		"&" document member of the same patent fa	mily	
<u> </u>	priority date claimed			
Date of the actual completion of the international search		Date of mailing of the international search	report	
25 September 2006 (25.09.2006)		TO DEP SOME		
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Mail Stop PCT, Attn: ISA/US		Scott A. Smith Sharm Wheen for		
Commissioner for Patents P.O. Box 1450		" //		
Alexa	andria, Virginia 22313-1450	Telephone No. 571-272-3700		
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Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/11284

Box No. II	Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)	
This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:		
1.	Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:	
2.	Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:	
3.	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).	
Box No. III	Observations where unity of invention is lacking (Continuation of item 3 of first sheet)	
	onal Searching Authority found multiple inventions in this international application, as follows: ntinuation Sheet	
1.	As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.	
2.	As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.	
3.	As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:	
	No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-10	
Remark on Pi	The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.	
	The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.	
	No protest accompanied the payment of additional search fees.	

Form PCT/ISA/210 (continuation of first sheet(2)) (April 2005)