

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 November 2007 (08.11.2007)

PCT

(10) International Publication Number
WO 2007/126735 A3

- (51) **International Patent Classification:**
B25C 1/04 (2006.01)
- (21) **International Application Number:**
PCT/US2007/007411
- (22) **International Filing Date:** 26 March 2007 (26.03.2007)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
60/793,358 20 April 2006 (20.04.2006) US

(71) **Applicant (for all designated States except US):** ILLINOIS TOOL WORKS INC. [US/US]; 3600 West Lake Avenue, Glenview, IL 60026 (US).

(72) **Inventor; and**

(75) **Inventor/Applicant (for US only):** JOHNSON, Michael, P. [US/US]; 3600 West Lake Avenue, Glenview, IL 60026 (US).

(74) **Agent:** HAUPTMAN, Benjamin, J.; Lowe Hauptman & Berner, LLP, 1700 Diagonal Rd., Suite 300, Alexandria, VA 22314 (US).

(81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) **Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

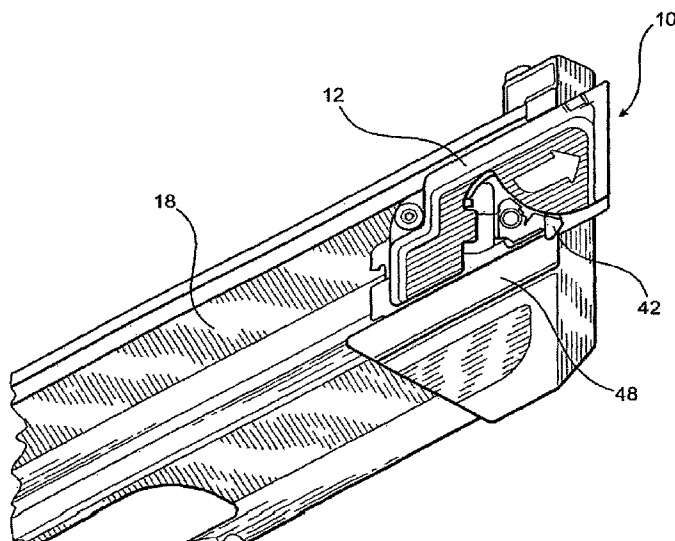
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) **Date of publication of the international search report:**
27 December 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) **Title:** BYPASS TYPE FOLLOWER ASSEMBLY HAVING A LATCH MECHANISM ON THE FOLLOWER CLAW



(57) **Abstract:** A follower mechanism of the bypass type comprises a follower body which is normally spring-biased in the forward direction so as to, in turn, normally bias a strip supply of nail-type fasteners in the forward direction toward a discharge path along which the leading one of the nail-type fasteners will be driven and discharged out from the fastener-driving tool. A follower claw is normally spring-biased, around the pivotal axis of a pivot pin mounted upon the follower body, to a position at which the follower claw can engage the trailing one of the nail-type fasteners so as to bias the supply strip of nail-type fasteners in the forward direction. A latch-hook is integrally provided upon the follower claw for engaging an undercut region of the fastener-driving tool magazine end cap in order to retain the entire follower mechanism at a rearwardly retracted position within the magazine assembly of the fastener-driving machine.

WO 2007/126735 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/07411

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC: B25C 1/04(2006.01)</p> <p>USPC: 227/120,136 According to International Patent Classification (IPC) or to both national classification and IPC</p>																										
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) U.S. : 227/8, 109, 119, 120, 130, 136</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)</p>																										
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>US 4,197,974 A (MORTON et al.) 15 April 1980. See entire document.</td> <td>1-12</td> </tr> <tr> <td>A</td> <td>US 4,389,012 A (GRIKIS et al.) 21 June 1983. See entire document.</td> <td>1-12</td> </tr> <tr> <td>A</td> <td>US 5,626,274 A (SHKOLNIKOV et al.) 06 May 1997. See entire document.</td> <td>1-12</td> </tr> <tr> <td>A</td> <td>US 6,149,046 A (HO et al.) 21 November 2000. See entire document.</td> <td>1-12</td> </tr> <tr> <td>A</td> <td>US 6,199,739 A (MUKOYAMA et al.) 13 March 2001. See entire document.</td> <td>1-12</td> </tr> <tr> <td>A</td> <td>US 6,296,167 A (JEN) 02 October 2001. See entire document.</td> <td>1-12</td> </tr> <tr> <td>A</td> <td>US 6,592,014 A (SMOLINSKI) 15 July 2003. See entire document.</td> <td>1-12</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	A	US 4,197,974 A (MORTON et al.) 15 April 1980. See entire document.	1-12	A	US 4,389,012 A (GRIKIS et al.) 21 June 1983. See entire document.	1-12	A	US 5,626,274 A (SHKOLNIKOV et al.) 06 May 1997. See entire document.	1-12	A	US 6,149,046 A (HO et al.) 21 November 2000. See entire document.	1-12	A	US 6,199,739 A (MUKOYAMA et al.) 13 March 2001. See entire document.	1-12	A	US 6,296,167 A (JEN) 02 October 2001. See entire document.	1-12	A	US 6,592,014 A (SMOLINSKI) 15 July 2003. See entire document.	1-12
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																								
A	US 4,197,974 A (MORTON et al.) 15 April 1980. See entire document.	1-12																								
A	US 4,389,012 A (GRIKIS et al.) 21 June 1983. See entire document.	1-12																								
A	US 5,626,274 A (SHKOLNIKOV et al.) 06 May 1997. See entire document.	1-12																								
A	US 6,149,046 A (HO et al.) 21 November 2000. See entire document.	1-12																								
A	US 6,199,739 A (MUKOYAMA et al.) 13 March 2001. See entire document.	1-12																								
A	US 6,296,167 A (JEN) 02 October 2001. See entire document.	1-12																								
A	US 6,592,014 A (SMOLINSKI) 15 July 2003. See entire document.	1-12																								
<p><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.</p>																										
<p>* Special categories of cited documents:</p> <table border="1"> <tbody> <tr> <td>"A"</td> <td>document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T"</td> <td>later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E"</td> <td>earlier application or patent published on or after the international filing date</td> <td>"X"</td> <td>document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L"</td> <td>document 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)</td> <td>"Y"</td> <td>document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"O"</td> <td>document referring to an oral disclosure, use, exhibition or other means</td> <td>"&"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"P"</td> <td>document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </tbody> </table>			"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E"	earlier application or patent published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L"	document 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 claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family	"P"	document published prior to the international filing date but later than the priority date claimed						
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention																							
"E"	earlier application or patent published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone																							
"L"	document 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 claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art																							
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family																							
"P"	document published prior to the international filing date but later than the priority date claimed																									
<p>Date of the actual completion of the international search 26 October 2007 (26.10.2007)</p>		<p>Date of mailing of the international search report 05 NOV 2007</p>																								
<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201</p>		<p>Authorized officer Scott Smith <i>James Heath</i> Telephone No. 571-272-3700 <i>Jan</i></p>																								