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HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,
MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM,
PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC,
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(54) **Title:** MULTI-USE HAMMER DEVICE AND METHOD

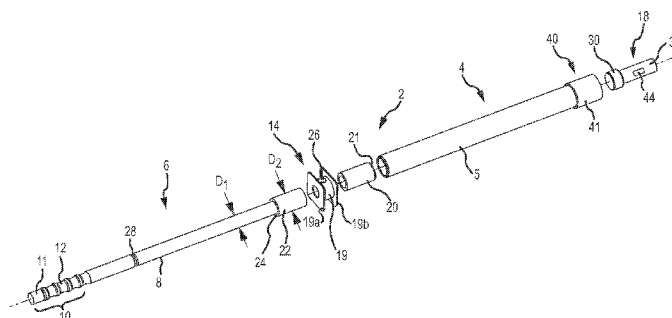


FIG. 2

(57) **Abstract:** A slide and pull hammer device includes three major components, namely, a guide sleeve, a drive bar and an impact head. The drive bar is inserted within the guide sleeve. The impact head is secured within the distal end of the guide sleeve, and has a portion which protrudes beyond the guide sleeve distal end. The drive bar is operable to impact both a distal end and a proximal end of the guide sleeve to apply force to objects in at least two opposite force directions. One force applied by the device includes a hammering or compression force, and another force applied by the device includes a tension or withdrawing force. Selected end tips may be attached to the impact head in order to apply force to targeted objects.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US14/72564

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - B25D 1/16 (2015.01)

CPC - B25D 1/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) Classification(s): B25C 1/02; B25D 1/16, 5/02 (2015.01)

CPC Classification(s): B25C 1/02; B25D 1/16, 5/02; USPC Classification(s): 81/27; 173/90

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatSeer (US, EP, WO, JP, DE, GB, CN, FR, KR, ES, AU, IN, CA, INPADOC Data); Google; Google Scholar; ProQuest; IP.com; keywords: hammer, sleeve, slide, guide, limit, tension, impact, pipe

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2,701,359 A (ASBURY EM) February 8, 1955; figures 1, 2; column 3, lines 15-20, 25-35, 70-81; column 4, lines 1-10	1-5, 12-15, 22 --- 6-10, 16-20
X	US 4,316,513 A (HARRIS D) February 23, 1982; figure 1; column 1, lines 30-40; column 2, lines 5-15	1, 2, 5, 15
Y	US 6,474,198 B2 (LOWTHER JK) November 5, 2002; figures 3, 7, 17, 23, 32; column 5, lines 30-40; column 6, lines 39-50; column 9, lines 40-45	6-10, 16-20
A	US 6,402,007 B1 (DYER RO) June 11, 2002; entire document	1-22
A	US 5,370,192 A (EVINGER MR) December 6, 1994; entire document	1-22
A	US 4,241,795 A (LANDRY ER Jr.) December 30, 1980; entire document	1-22

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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