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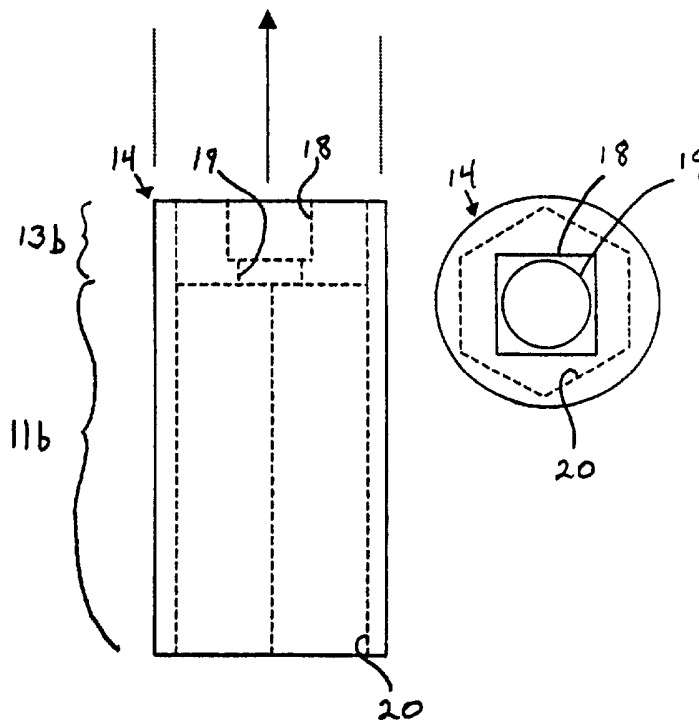
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(54) Title: PROTECTIVE SOCKET HAVING STRENGTHENED TOOL-DRIVE HOLE



(57) Abstract: A socket adapted to engage a socket drive tool and to torque a head of a hardware fastener includes a metallic outer sleeve and a non-metallic inner lining. The outer sleeve has an outer sleeve drive portion adapted to engage the socket drive tool, and an outer sleeve hardware portion attached to the outer sleeve drive portion. The inner lining is disposed within the outer sleeve hardware portion and has an inner lining drive portion adapted to engage the socket drive tool. The inner lining further includes an inner lining hardware portion attached to the inner lining drive portion, wherein the inner lining hardware portion includes a torquing hole, located at the distal end of the socket, and is sized to fit over the head of the hardware fastener to provide torque to the hardware fastener.

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INTERNATIONAL SEARCH REPORT

International application No. PCT/US04/05980

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : B25B 13/00
 US CL : 81/124.6
 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)
 U.S. : 81/124.6, 121.1, 900

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3,868,874 A (OLASHAW) 04 March 1975 (04.03.1975), see entire document.	1-24
A, P	US 2003/0192409 A1 (WALLACE) 16 October 2003 (16.10.2003), see entire document.	1-24

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

<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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</p> <p>"&" document member of the same patent family</p>
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Date of the actual completion of the international search 23 February 2005 (23.02.2005)	Date of mailing of the international search report 18 APR 2005
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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. (703) 305-3230	Authorized officer <i>Shawn A. Greene for</i> James G. Smith Telephone No. 703-308-1148
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/05980

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.: 1-24
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:
Please See Continuation Sheet

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)

This International Searching Authority found multiple inventions in this international application, as follows:

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 an additional fee, this Authority did not invite payment of any additional fee.
 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.:

 4. 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.:
- Remark on Protest The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
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Continuation of Box II Reason 2:

1. Claims 10, 11, 21 and 22 contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The features of these claims are not found in the originally filed drawings or specification.

2. Claims 1-24 are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis for "the distal end of the socket" in claims 1 and 12; "the distal end of the outer sleeve" in claims 8 and 19 and "the predetermined size of the hardware fastener" and "the predetermined minimum counter bore diameter" in claim 24.

In claims 7 and 18, it is unclear as to what is meant by "the inner lining hardware portion is has a cross section". It appears that "is" should be cancelled.

Also, claim 24 is not understood as the included chart is to the fastener and the counter bore of the workpiece and has no structural limitations of the socket thus it does not further restrict the socket in any manner.