Abstract: A volar fixation system (100) includes a T-shaped plate (102) intended to be positioned against the volar side of the radial bone, a plurality of bone screws (104) for securing the plate (102) along a non-fractured portion of the radial bone, and a plurality of bone pegs (108) which extend through the threaded peg holes (130, 132, 134 and 136) in the plate (102) and into bone fragments of a Colles’ fracture. Various peg hole and peg arrangements are disclosed, including an embodiment in which the pegs (108) can be articulated through a range of angles within respective peg holes and fixed at a desired angle within the range.
### A. CLASSIFICATION OF SUBJECT MATTER

**IPC(7)**: A61B 17/80  
**US CL**: 606/69  

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.: 606/69, 60, 71, 70, 72; 623/21.112

**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, Please See Extra Sheet.**

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tbody>
<tr>
<td><strong>A</strong></td>
<td></td>
<td>1-60 &amp; 67-70</td>
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<td><strong>Y</strong></td>
<td>US 2,500,370 A (McKibbin) 14 March 1950, Fig. 2.</td>
<td>1-3, 5, 11-15, 19, 26, 27-33, 35-41, 44-46, 49, 52, 53 &amp; 54-60</td>
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</table>

**X** Further documents are listed in the continuation of Box C.  

See patent family annex.

**Date of the actual completion of the international search**: 31 AUGUST 2001  
**Date of mailing of the international search report**: 25 OCT 2001

**Name and mailing address of the ISA/US Commissioner of Patents and Trademarks**  
Box PCT, Washington, D.C. 20231  
**Facsimile No.**: (703) 305-3260

**Authorized officer**: L. Gene Mancine  
**Telephone No.**: (703) 305-3260

Form PCT/ISA/210 (second sheet) (July 1998)
## INTERNATIONAL SEARCH REPORT

### C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tbody>
<tr>
<td>Y, P</td>
<td>US 6,096,040 A (Esser) 01 August 2000, see entire document.</td>
<td>15 &amp; 27</td>
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<td>Y</td>
<td>US 3,741,205 A (Markolf et al.) 26 June 1973, Figs. 3-7.</td>
<td>15, 27-31 &amp; 55</td>
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<td>A, E</td>
<td>US 6,183,475 B1 (Lester et al.) 06 February 2001, Figs. 3-5.</td>
<td>1-60 &amp; 67-70</td>
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<td>Y</td>
<td>US 5,968,047 A (Reed) 19 October 1999, Fig. 20.</td>
<td>40, 41 &amp; 56</td>
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<tr>
<td>A</td>
<td></td>
<td>1-60 &amp; 67-70</td>
</tr>
<tr>
<td>A</td>
<td>US 4,867,144 A (Karas et al.) 19 September 1989, Figs. 1-7.</td>
<td>1-60 &amp; 67-70</td>
</tr>
</tbody>
</table>

Form PCT/ISA/210 (continuation of second sheet) (July 1998)
### Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international 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 6.8(a).

### Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

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

Please See Extra 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 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. 1-60 & 67-70

**Remark on Protest**

☐ The additional search fees were accompanied by the applicant’s protest.

☐ No protest accompanied the payment of additional search fees.
B. FIELDS SEARCHED
Electronic data bases consulted (Name of data base and where practicable terms used):

EAST: (shank WITH (nonthreaded OR smooth)) AND fastener AND (threaded WITH head);
fixation AND fracture AND peg AND bone AND plate; fixation AND wrist AND peg AND screw; (volar OR wrist)
AND (fixation OR fusion) AND (threads WITH hole) AND plate

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING
This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single
inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search
fees must be paid.

Group I, claim(s) 1-60 67-70 and , drawn to a Volar fixation system and method for use thereof.
Group II, claim(s) 61-69, drawn to a peg for insertion into a peg hole in a fracture fixation system.
Group III, claim(s) 64-66, drawn to a set screw for a set peg.

The inventions listed as Groups I-III do not relate to a single inventive concept under PCT Rule 13.1 because, under
PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: inventions II
and III do not require the structure of Group I and therefore may be used in systems other than that of Group I.