



US00D777329S

(12) **United States Design Patent**
Montoya et al.

(10) **Patent No.:** **US D777,329 S**

(45) **Date of Patent:** **** Jan. 24, 2017**

(54) **BONE STAPLE**

(71) Applicant: **Nextremity Solutions, Inc.**, Warsaw, IN (US)

(72) Inventors: **Jorge A. Montoya**, Berkeley Heights, NJ (US); **John R. Pepper**, Cheshire, CT (US); **Lon S. Weiner**, Rumson, NJ (US); **Stuart D. Katchis**, Scarsdale, NY (US); **Lawrence Kiefer**, Newark, NJ (US)

(73) Assignee: **Nextremity Solutions, Inc.**, Warsaw, IN (US)

(**) Term: **15 Years**

(21) Appl. No.: **29/542,904**

(22) Filed: **Oct. 19, 2015**

(51) **LOC (10) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/155**

(58) **Field of Classification Search**
USPC **D24/155-157**

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,960,147 A 6/1976 Murray
4,014,244 A * 3/1977 Larson F16B 15/06
411/451.3

(Continued)

Primary Examiner — Charles Hanson

(74) *Attorney, Agent, or Firm* — Hoslin Rothenberg Farley & Mesiti P.C.; John W. Boger

(57) **CLAIM**

The ornamental design for the bone staple, as shown and described.

DESCRIPTION

FIG. 1 is a top, front perspective view of the bone staple comprising the new design;

FIG. 2 is a bottom, rear perspective view of the design of FIG. 1;

FIG. 3 is a rear elevational view of the design of FIG. 1; FIG. 4 is a front elevational view of the design of FIG. 1;

FIG. 5 is a right elevational view of the design of FIG. 1, wherein the left elevational view is a mirror image thereof;

FIG. 6 is a bottom view of the design of FIG. 1; FIG. 7 is a top view of the design of FIG. 1;

FIG. 8 is a top, front perspective view of an alternative embodiment of the bone staple of FIG. 1;

FIG. 9 is a bottom, rear perspective of the design of FIG. 8; FIG. 10 is a rear elevational view of the design of FIG. 8;

FIG. 11 is a front elevational view of the design of FIG. 8; FIG. 12 is a right elevational view of the design of FIG. 8,

wherein the left elevational view is a mirror image thereof; FIG. 13 is a bottom view of the design of FIG. 8; and,

FIG. 14 is a top view of the design of FIG. 8; FIG. 15 is a top, front perspective view of an alternative embodiment of the bone staple of FIG. 1;

FIG. 16 is a bottom, rear perspective of the design of FIG. 15;

FIG. 17 is a rear elevational bottom view of the design of FIG. 15;

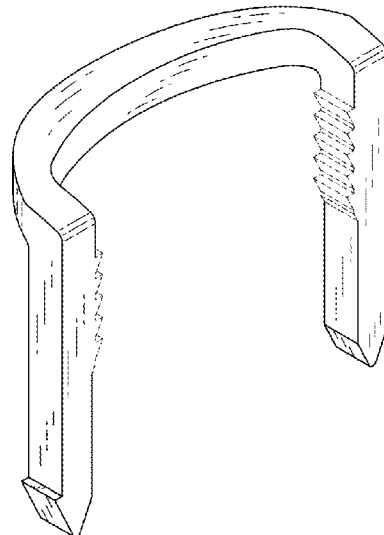
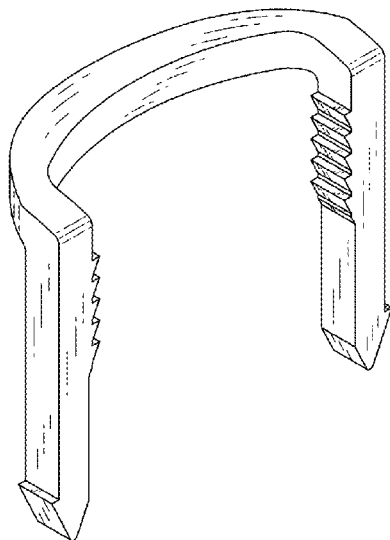
FIG. 18 is a front elevational view of the design of FIG. 15; FIG. 19 is a right elevational view of the design of FIG. 15,

wherein the left elevational view is a mirror image thereof; FIG. 20 is a bottom view of the design of FIG. 15; and,

FIG. 21 is a top view of the design of FIG. 15.

The broken lines in the figures are directed to the environment and are for illustrative purposes only; the broken lines form no part of the claimed design.

1 Claim, 9 Drawing Sheets



(58) **Field of Classification Search**
 CPC A61B 17/0642; A61B 17/0682; A61B
 17/0644; F16B 15/06
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D281,814 S * 12/1985 Pratt D24/145
 4,570,623 A 2/1986 Ellison et al.
 4,838,254 A 6/1989 Gauthier
 4,848,328 A 7/1989 Laboureau et al.
 5,053,038 A 10/1991 Sheehan
 5,246,443 A 9/1993 Mai
 5,474,557 A 12/1995 Mai
 5,662,655 A 9/1997 Laboureau et al.
 5,788,698 A 8/1998 Savornin
 D418,399 S 1/2000 Tucker
 6,059,787 A 5/2000 Allen
 6,325,805 B1 12/2001 Ogilvie et al.
 6,336,928 B1 1/2002 Guerin et al.
 6,348,054 B1 2/2002 Allen
 D484,032 S * 12/2003 Del Re D8/390
 6,773,437 B2 8/2004 Ogilvie et al.
 6,783,531 B2 8/2004 Allen
 D572,363 S 7/2008 Menn
 7,398,907 B2 * 7/2008 Racenet A61B 17/0644
 227/176.1

D574,956 S 8/2008 Grim
 D586,915 S 2/2009 Grim
 7,635,367 B2 12/2009 Groiso
 D625,417 S * 10/2010 Fox D24/171
 8,235,995 B2 8/2012 Focht et al.
 D691,720 S 10/2013 Cheney et al.
 D698,021 S 1/2014 Nering et al.
 8,679,123 B2 3/2014 Kinmon et al.
 D705,930 S 5/2014 Cheney
 D706,927 S 6/2014 Cheney et al.
 D707,357 S 6/2014 Cheney et al.
 D717,951 S 11/2014 Cheney et al.
 8,894,669 B2 11/2014 Nering et al.
 9,017,331 B2 * 4/2015 Fox A61B 17/0642
 606/75
 9,055,945 B2 6/2015 Miksza et al.
 9,107,661 B2 * 8/2015 Euteneuer A61B 17/0642
 9,271,726 B2 * 3/2016 Euteneuer A61B 17/0642
 9,295,463 B2 * 3/2016 Viola A61B 17/0057
 9,402,624 B1 * 8/2016 Scott A61B 17/0642
 2004/0138705 A1 7/2004 Heino et al.
 2007/0093839 A1 4/2007 Beckendorf et al.
 2013/0030437 A1 1/2013 Fox
 2013/0231667 A1 9/2013 Taylor et al.
 2014/0018809 A1 1/2014 Allen
 2014/0276830 A1 9/2014 Cheney
 2015/0080919 A1 3/2015 Nering et al.

* cited by examiner

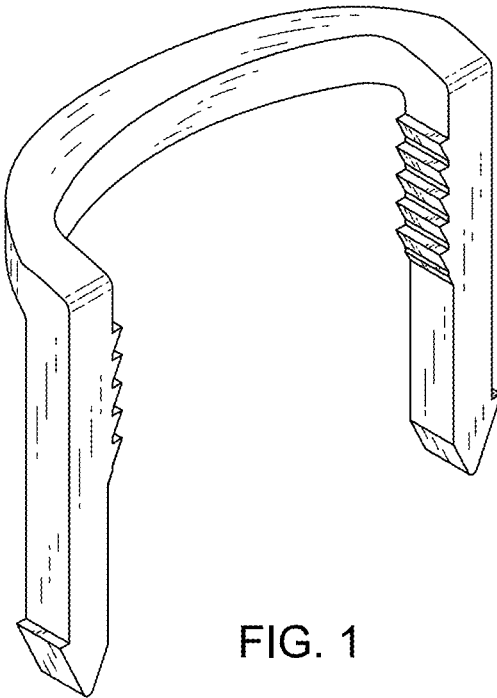


FIG. 1

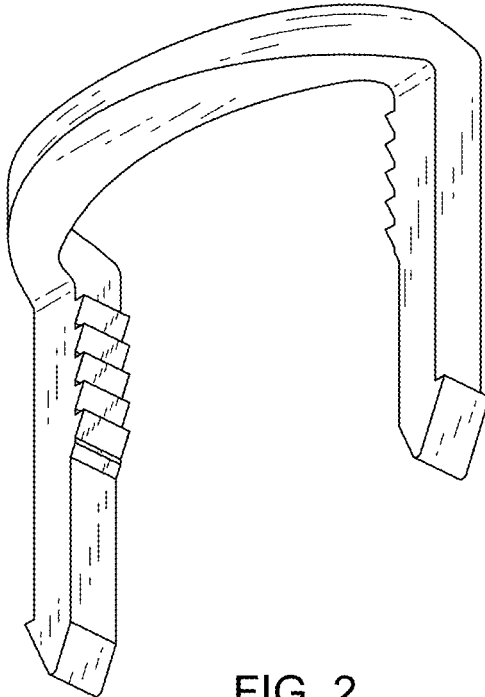


FIG. 2

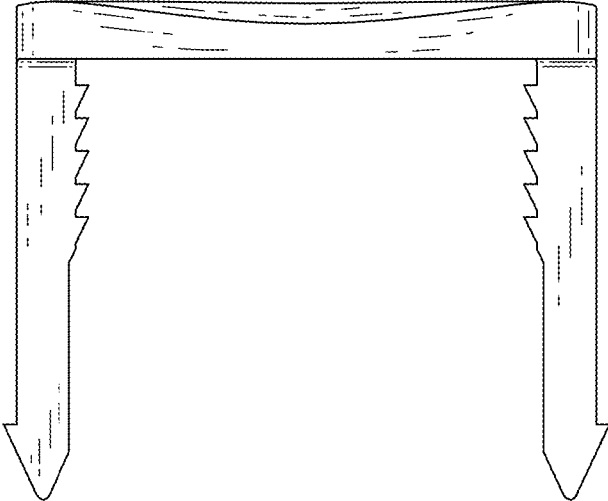


FIG. 3

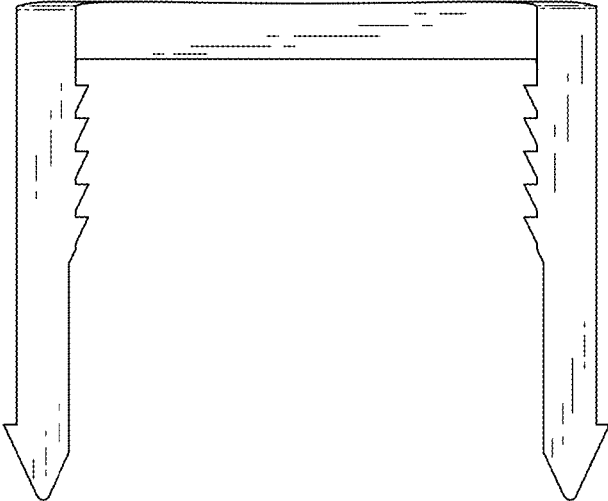


FIG. 4

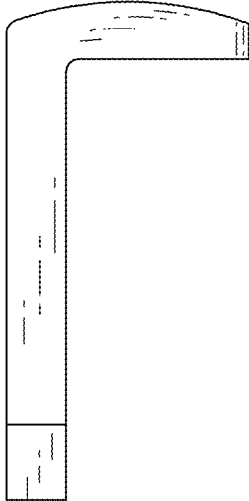


FIG. 5

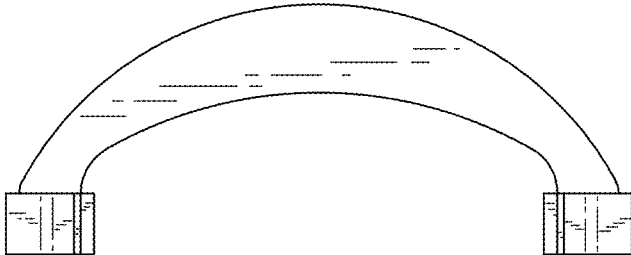


FIG. 6

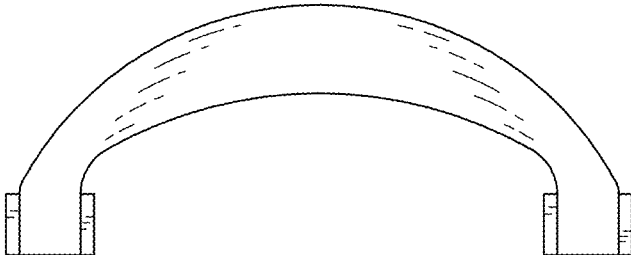


FIG. 7

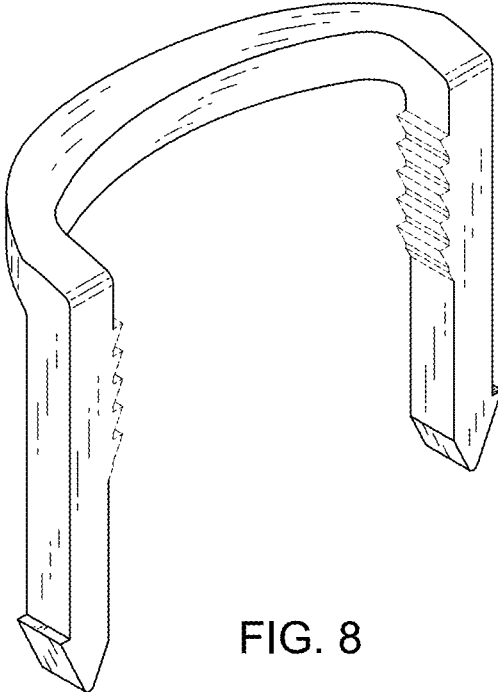


FIG. 8

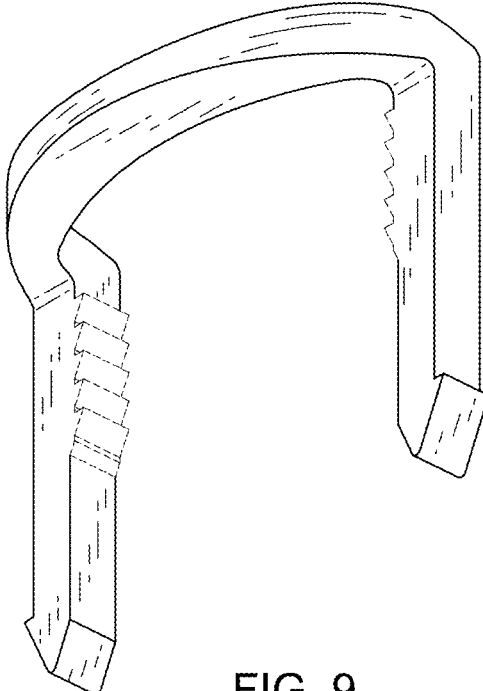


FIG. 9

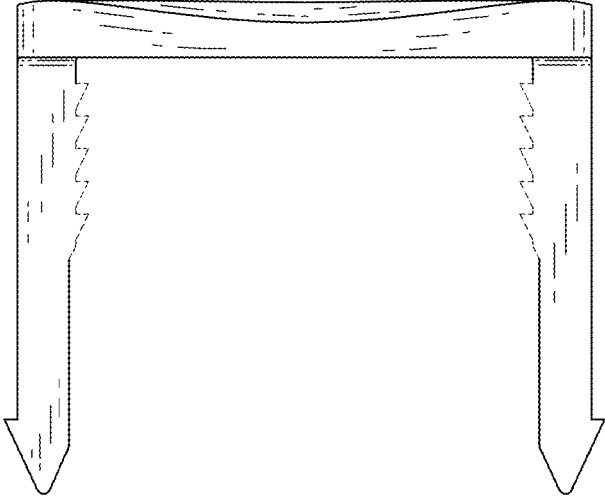


FIG. 10

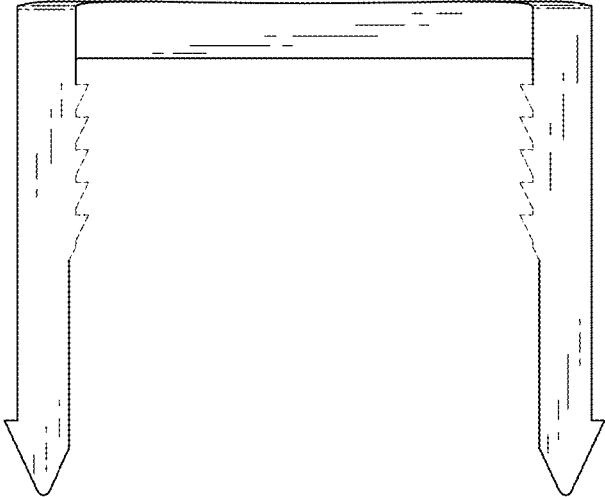


FIG. 11

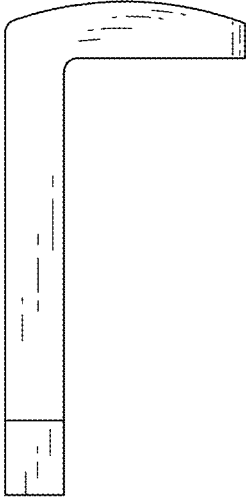


FIG. 12

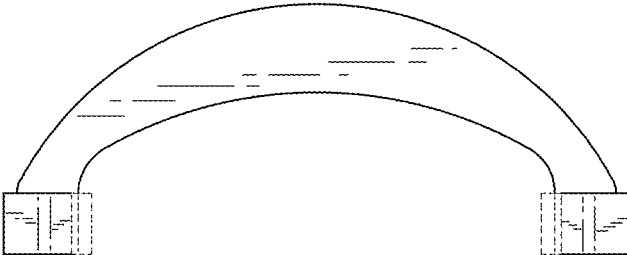


FIG. 13

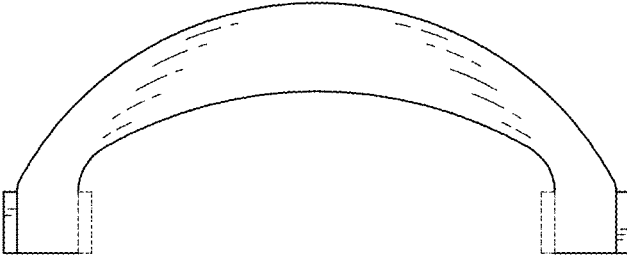


FIG. 14

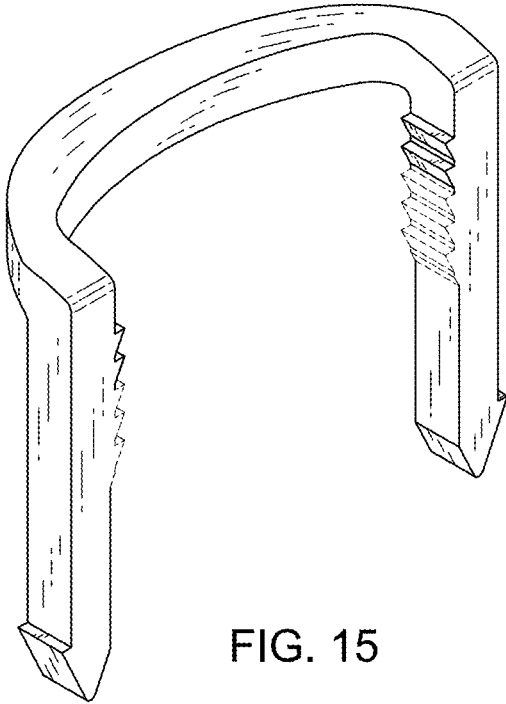


FIG. 15

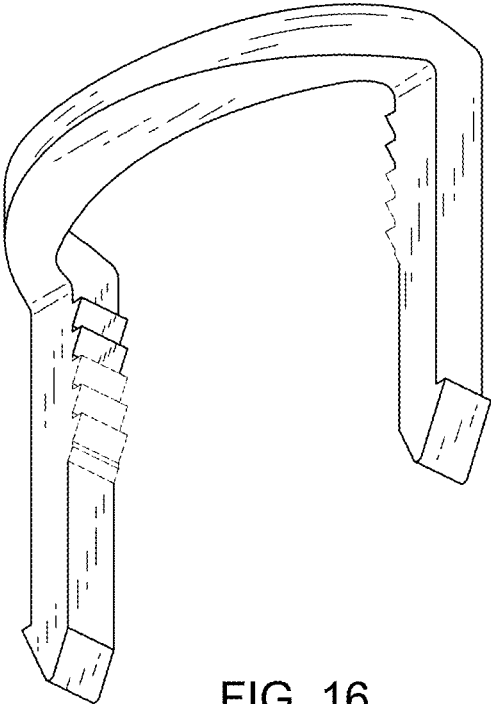


FIG. 16

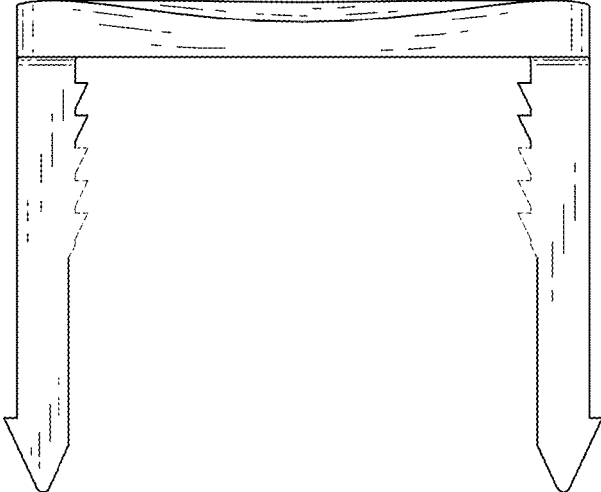


FIG. 17

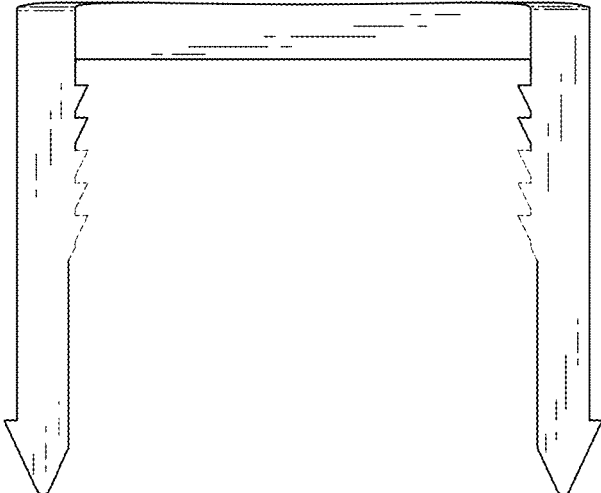


FIG. 18

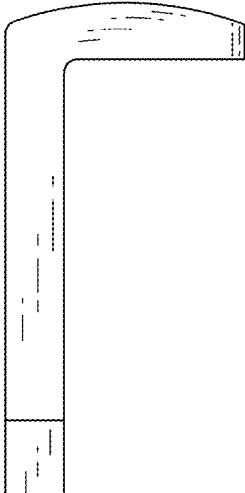


FIG. 19

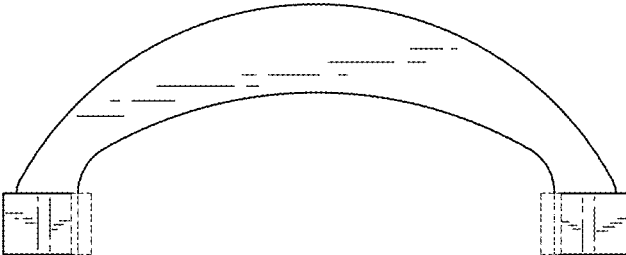


FIG. 20

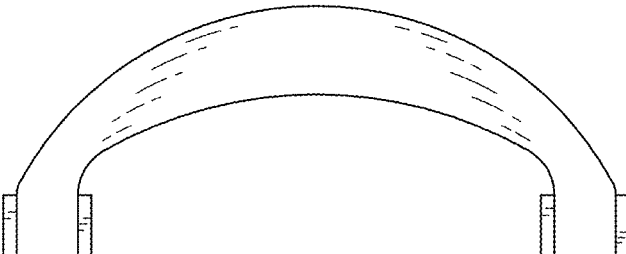


FIG. 21