



US00D950736S

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

(10) **Patent No.:** **US D950,736 S**

(45) **Date of Patent:** **** May 3, 2022**

(54) **SHAFT FOR ULTRASONIC SURGICAL INSTRUMENTS**

D623,755 S * 9/2010 Ikegame D24/186
D627,463 S * 11/2010 Voic D24/144
D749,730 S * 2/2016 Dietz D24/146

(Continued)

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FOREIGN PATENT DOCUMENTS

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JP D2014-28494 * 9/2015

OTHER PUBLICATIONS

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Thunderbeat Technology. Online, published date unknown. Retrieved on Sep. 3, 2021 from URL: <https://www.olympusprofed.com/gyn/stms-gyn/22073/>.*

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

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(21) Appl. No.: **29/746,739**

(57) **CLAIM**

The ornamental design for a shaft for ultrasonic surgical instruments, as shown and described.

(22) Filed: **Aug. 17, 2020**

DESCRIPTION

(30) **Foreign Application Priority Data**

Feb. 18, 2020 (CN) 202030053728.7

(51) **LOC (13) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/187**

(58) **Field of Classification Search**
USPC D24/133, 137, 138, 141, 158, 160, 164, D24/165, 167, 170, 186, 187, 200, 146; D10/57, 60, 78, 80
CPC ... A61B 5/0095; A61B 8/4444; A61B 8/4455; A61B 8/445; A61B 17/320068; A61B 17/1615; G01S 7/5208; G01N 29/265
See application file for complete search history.

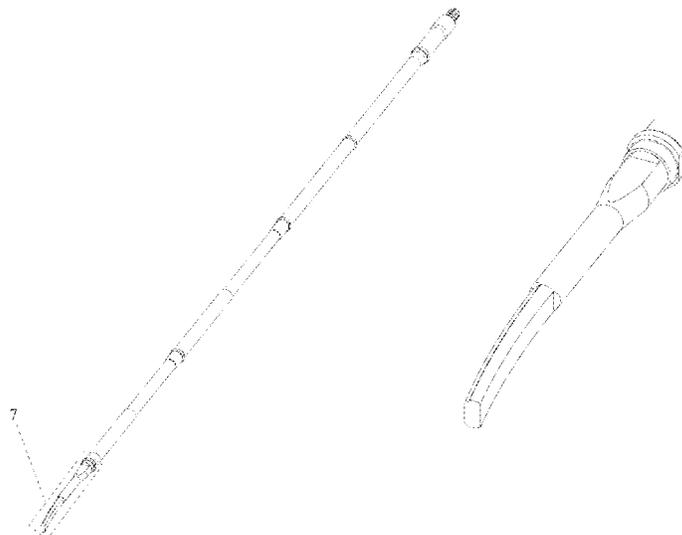
FIG. 1 is a bottom perspective view of a shaft for ultrasonic surgical instruments showing the claimed design; FIG. 2 is a front view thereof; FIG. 3 is a rear view thereof; FIG. 4 is a left side view thereof, the right side view being a mirror image thereof; FIG. 5 is an enlarged top view thereof; FIG. 6 is an enlarged bottom view thereof; FIG. 7 is an enlarged bottom perspective view of area 7 shown in FIG. 1; FIG. 8 is an enlarged front view thereof; FIG. 9 is an enlarged rear view thereof; FIG. 10 is an enlarged left side view thereof; and, FIG. 11 is an enlarged bottom view thereof. The dash broken lines in the figures depict portions of the shaft for ultrasonic surgical instruments that form no part of the claimed design. The dot dash broken lines depict the boundaries of the claim and form no part thereof.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D396,287 S * 7/1998 Morales D24/141
D408,529 S * 4/1999 Hechel D24/112
D427,091 S * 6/2000 Suurmeijer D10/78

1 Claim, 9 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D791,317 S * 7/2017 Bresco Torras D24/138
D812,224 S * 3/2018 McGrath D24/137
D831,834 S * 10/2018 Bader D24/187
D868,249 S * 11/2019 Chen D24/137
D893,714 S * 8/2020 Trezza D24/138
D906,521 S * 12/2020 Fujisaki D24/146
D913,940 S * 3/2021 Ishii D13/121
2017/0202570 A1 * 7/2017 Shelton, IV ... A61B 17/320092
2020/0305892 A1 * 10/2020 Cao A61B 17/1604
2021/0030435 A1 * 2/2021 Cao A61B 17/144
2021/0251650 A1 * 8/2021 Cao A61B 17/320068

* cited by examiner

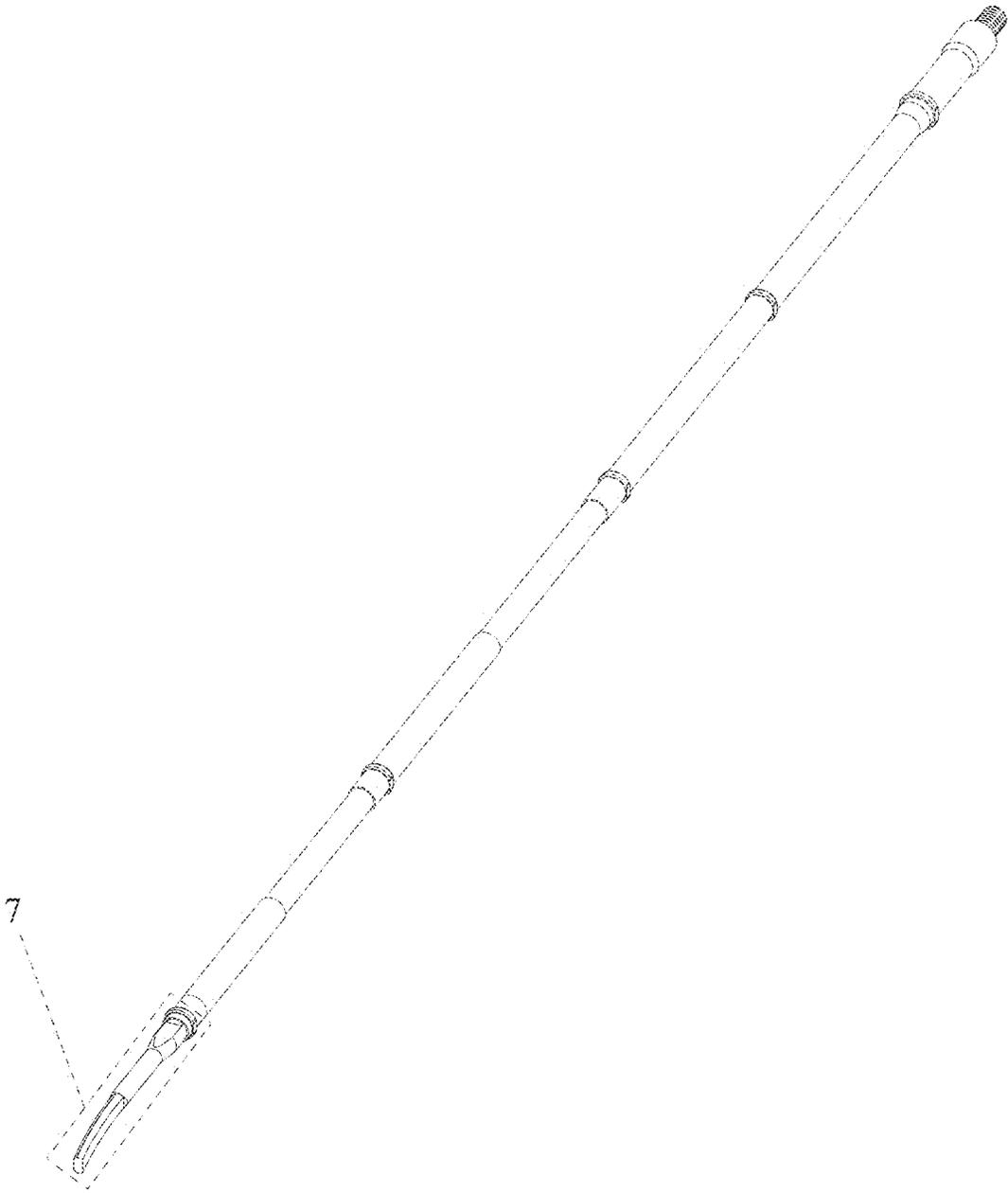


FIG. 1

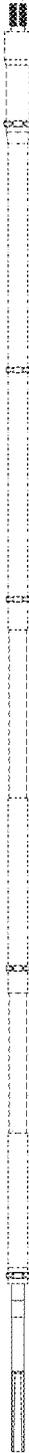


FIG. 2



FIG. 3



FIG. 4

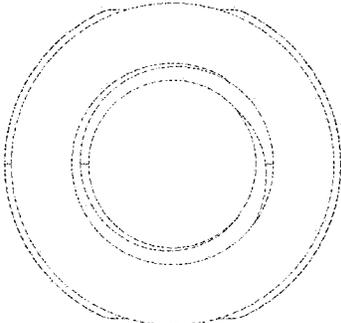


FIG. 5

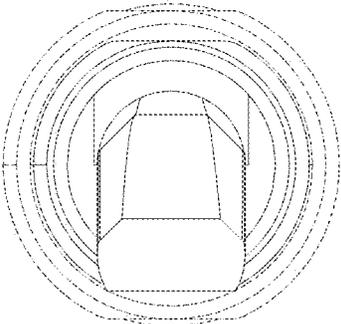


FIG. 6

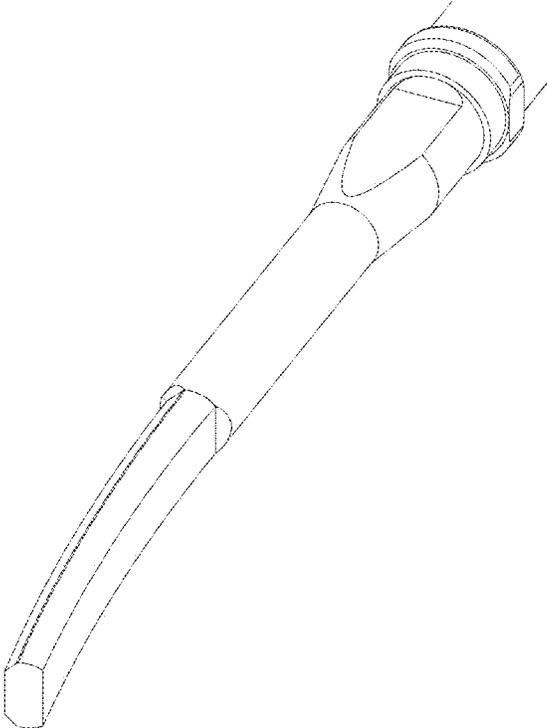


FIG. 7

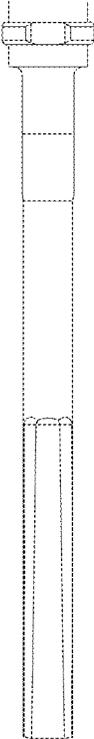


FIG. 8

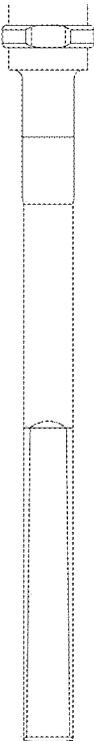


FIG. 9

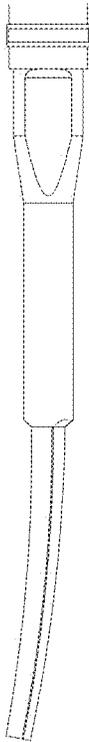


FIG. 10



FIG. 11