



US00D980884S

(12) **United States Design Patent**  
**Hoffmann**

(10) **Patent No.:** **US D980,884 S**  
(45) **Date of Patent:** **\*\* Mar. 14, 2023**

- (54) **LIFT PIN**
- (71) Applicant: **Applied Materials, Inc.**, Santa Clara, CA (US)
- (72) Inventor: **Eric J. Hoffmann**, San Francisco, CA (US)
- (73) Assignee: **APPLIED MATERIALS, INC.**, Santa Clara, CA (US)
- (\*\*) Term: **15 Years**
- (21) Appl. No.: **29/772,523**
- (22) Filed: **Mar. 2, 2021**
- (51) **LOC (14) Cl.** ..... **15-09**
- (52) **U.S. Cl.**  
USPC ..... **D15/138**
- (58) **Field of Classification Search**  
USPC ..... D15/122, 138, 140, 199  
See application file for complete search history.

- 7,187,188 B2 3/2007 Andrews et al.
- 7,292,428 B2 11/2007 Hanawa et al.
- D568,914 S \* 5/2008 Or ..... D15/138
- D635,597 S \* 4/2011 Tiner ..... D15/138
- D640,715 S \* 6/2011 Tiner ..... H01L 21/68742  
D15/138

(Continued)

**FOREIGN PATENT DOCUMENTS**

- CN 100440476 C 12/2008
- CN 101352108 A 1/2009

(Continued)

**OTHER PUBLICATIONS**

“PCT International Search Report and Written Opinion in PCT/US2021/052564 dated Jan. 14, 2022, 11 pages”.

*Primary Examiner* — Philip S Hyder  
(74) *Attorney, Agent, or Firm* — Servilla Whitney LLC

(57) **CLAIM**

The ornamental design for a lift pin, substantially as shown and described.

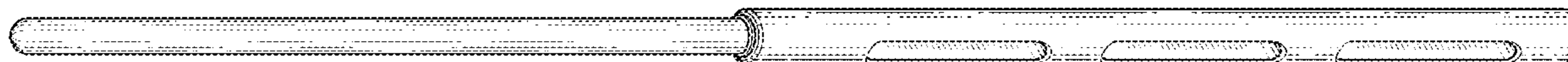
**DESCRIPTION**

This application claims priority to U.S. patent application Ser. No. 17/061,015, filed Oct. 1, 2020, the entire disclosure of which is hereby incorporated by reference herein.

FIG. 1 is a top-front isometric view of a lift pin showing my new design;  
FIG. 2 is a bottom-front isometric view thereof;  
FIG. 3 is a front view thereof;  
FIG. 4 is a right side view thereof;  
FIG. 5 is a back view thereof;  
FIG. 6 is a left side view thereof;  
FIG. 7 is a top view thereof; and,  
FIG. 8 is a bottom view thereof.

**1 Claim, 4 Drawing Sheets**

- (56) **References Cited**
- U.S. PATENT DOCUMENTS**
- 3,015,709 A \* 1/1962 Bodenschatz ..... H01H 9/10  
337/194
- 4,790,258 A 12/1988 Drage et al.
- 5,823,153 A 10/1998 Santi et al.
- 6,032,691 A 3/2000 Powell et al.
- 6,148,762 A 11/2000 Fukuda et al.
- 6,389,677 B1 5/2002 Lenz
- 6,550,484 B1 4/2003 Gopinath
- D504,313 S \* 4/2005 Stoewer ..... H01H 9/10  
D8/387
- 6,884,319 B2 \* 4/2005 Kim ..... C23C 16/4586  
156/345.52
- 6,887,317 B2 5/2005 Or et al.
- 7,160,392 B2 1/2007 Shang et al.
- 7,180,283 B2 2/2007 Hunger et al.



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D650,818 S \* 12/2011 Tiner ..... H01L 21/68742  
D15/138  
8,230,931 B2 7/2012 Rodriguez et al.  
10,192,770 B2 1/2019 Yudovsky  
10,262,888 B2 4/2019 Gangakhedkar et al.  
2004/0045509 A1\* 3/2004 Or ..... H01L 21/68742  
118/729  
2005/0000453 A1 1/2005 Hwang et al.  
2005/0194100 A1 9/2005 Or et al.  
2007/0089672 A1 4/2007 Shimamura  
2008/0134814 A1\* 6/2008 Kim ..... H01L 21/68742  
118/500  
2010/0212832 A1 8/2010 Wakasaki et al.  
2011/0287631 A1 11/2011 Yamamoto  
2013/0333616 A1 12/2013 Klindworth et al.  
2014/0097175 A1 4/2014 Yu et al.  
2019/0051555 A1 2/2019 Hill et al.  
2019/0131167 A1 5/2019 Rice et al.

FOREIGN PATENT DOCUMENTS

EP 1174910 A2 1/2002  
JP 61214937 A 9/1986  
KR 20090132335 A 12/2009  
WO 2010109373 A2 9/2010

\* cited by examiner



FIG. 1



FIG. 2



FIG. 3



FIG. 4

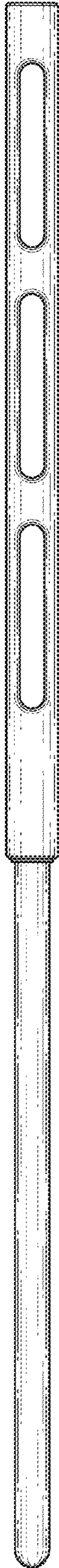


FIG. 5

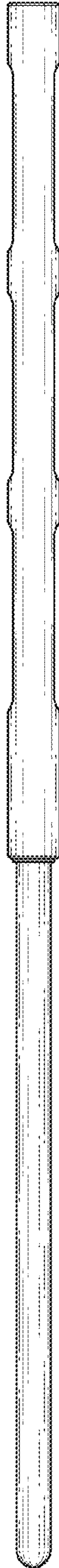


FIG. 6

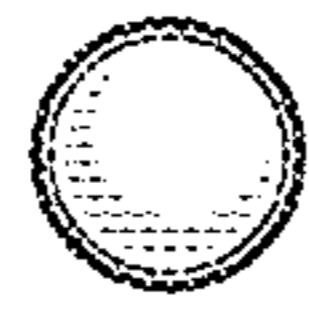


FIG. 7



FIG. 8