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

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(54) **SUBSTRATE SUPPORT PEDESTAL**

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(52) **U.S. Cl.**  
USPC ..... **D13/182; D15/140**

(58) **Field of Classification Search**  
USPC ... D13/118, 120, 123, 133, 139.5, 154, 155,  
D13/157, 158, 173, 182, 184, 199;  
D8/354, 382; D15/140  
CPC ..... H01L 21/6875; H01L 21/68714; H01R  
13/02  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D406,852 S	3/1999	Burkhart et al.	
D425,919 S *	5/2000	Burkhart	D15/140
D490,827 S *	6/2004	Okugawa	D15/140
D621,804 S *	8/2010	Sip	D13/182
D664,249 S *	7/2012	Wang	D23/388
D708,651 S *	7/2014	Martin	D15/140
D716,742 S *	11/2014	Jang	D13/182
D723,077 S *	2/2015	Sakata	D15/140
9,490,150 B2	11/2016	Tzu et al.	
9,779,971 B2	10/2017	Ravi et al.	
D813,181 S *	3/2018	Okajima	D13/182

D825,505 S *	8/2018	Hanson	D13/182
D830,981 S *	10/2018	Jeong	D13/182
2008/0190367 A1	8/2008	Lee et al.	
2011/0031111 A1	2/2011	Kobayashi	
2012/0329000 A1	12/2012	Hirakawa	

(Continued)

**FOREIGN PATENT DOCUMENTS**

JP	2008-244079 A	10/2008
JP	D1547357 S	4/2016

(Continued)

**OTHER PUBLICATIONS**

“SemiXicon Electrostatic Chuck”. Found online Sep. 29, 2020 at semixicon.com. Reference dated Jun. 17, 2017. Retrieved from <https://web.archive.org/web/20170617035614/http://www.semixicon.com/>. (Year: 2017).\*

(Continued)

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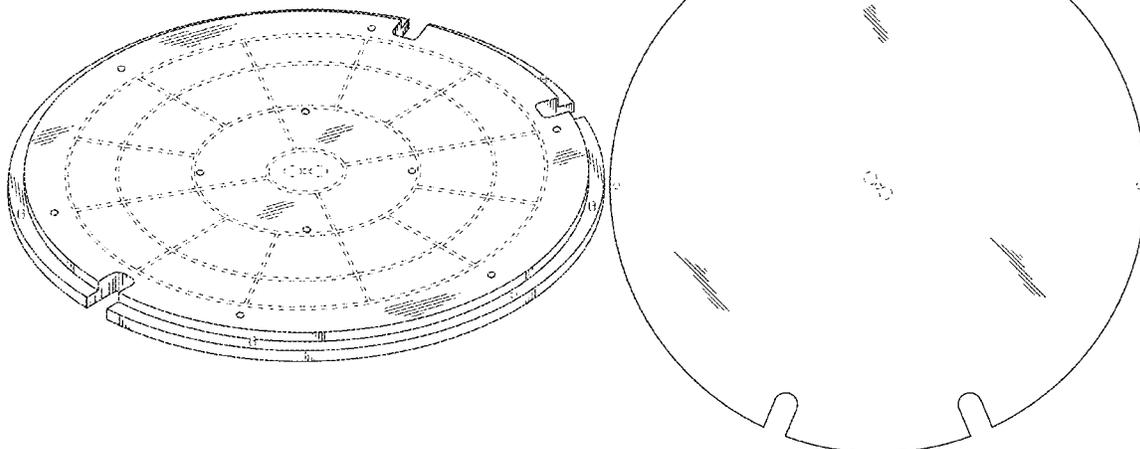
(57) **CLAIM**

The ornamental design for a substrate support pedestal, as shown and described.

**DESCRIPTION**

FIG. 1 is a top, front, right side perspective view of a substrate support pedestal, showing our new design.  
FIG. 2 is a top plan view thereof.  
FIG. 3 is a bottom plan view thereof.  
FIG. 4 is a front elevation view thereof.  
FIG. 5 is a back elevation view thereof.  
FIG. 6 is a right side elevation view thereof; and,  
FIG. 7 is a left side elevation view thereof.  
The broken lines in FIGS. 1-7 represent unclaimed environment forming no part of the claimed design.

**1 Claim, 5 Drawing Sheets**



(56)

**References Cited**

## U.S. PATENT DOCUMENTS

2014/0008349	A1	1/2014	Tzu et al.	
2014/0011153	A1*	1/2014	Lindley .....	H01L 21/68785 432/227
2014/0144901	A1	5/2014	Cuvalci et al.	
2014/0217665	A1	8/2014	Cuvalci et al.	
2016/0002778	A1	1/2016	Ravi et al.	
2018/0044783	A1	2/2018	Sheelavant	
2019/0131163	A1*	5/2019	Kuno .....	H01L 21/6833
2019/0318944	A1*	10/2019	Fujisawa .....	H01L 21/78
2020/0343120	A1	10/2020	Miyaya et al.	

## FOREIGN PATENT DOCUMENTS

KR	2007-0017255	A	2/2007
TW	D163540		10/2014
TW	D177006		7/2016
TW	D193203		10/2018
TW	D197827		6/2019

## OTHER PUBLICATIONS

“AMAT MCA E-Chuck”. Found online Sep. 29, 2020 at ebay.com. Reference dated May 30, 2017. Retrieved from <https://www.ebay.com/itm/AMAT-0010-03774-HEATER-ASSY-300mm-AMAT-MCA-E-Chuck-ESC-/262005122022>. (Year: 2017).\*

“NTK Ceratec—Electrostatic Chuck”. Found online Sep. 29, 2020 at dksh.com. Reference dated Aug. 7, 2017. Retrieved from [https://tineye.com/search/3be6e76355441efd8d67fc67d0912dac27f2b87d?sort=crawl\\_date&order=asc&page=1](https://tineye.com/search/3be6e76355441efd8d67fc67d0912dac27f2b87d?sort=crawl_date&order=asc&page=1). (Year: 2017).\*

International Search Report for PCT/US2020/042920, dated Nov. 6, 2020.

Search Report for Taiwan Design Application No. 109306863, dated Jan. 19, 2021.

\* cited by examiner

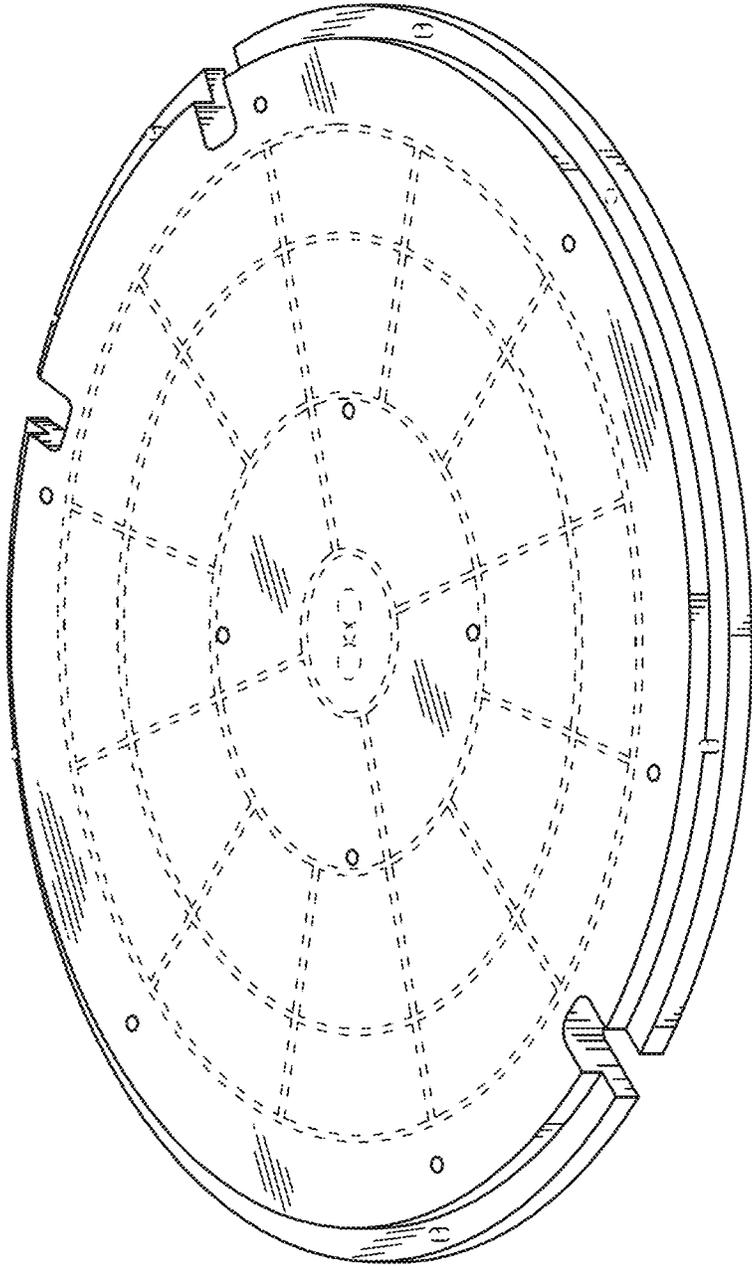


FIG. 1

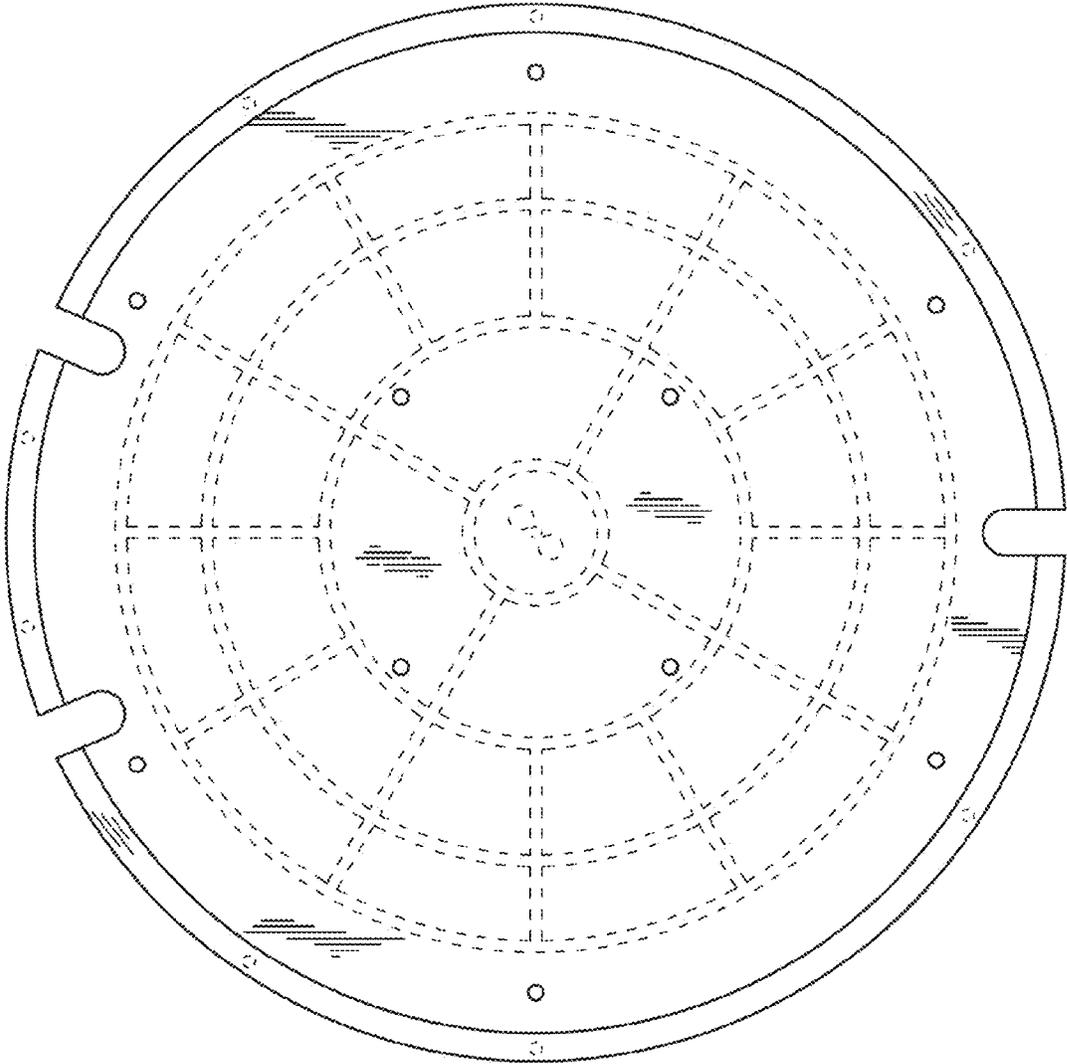


FIG. 2

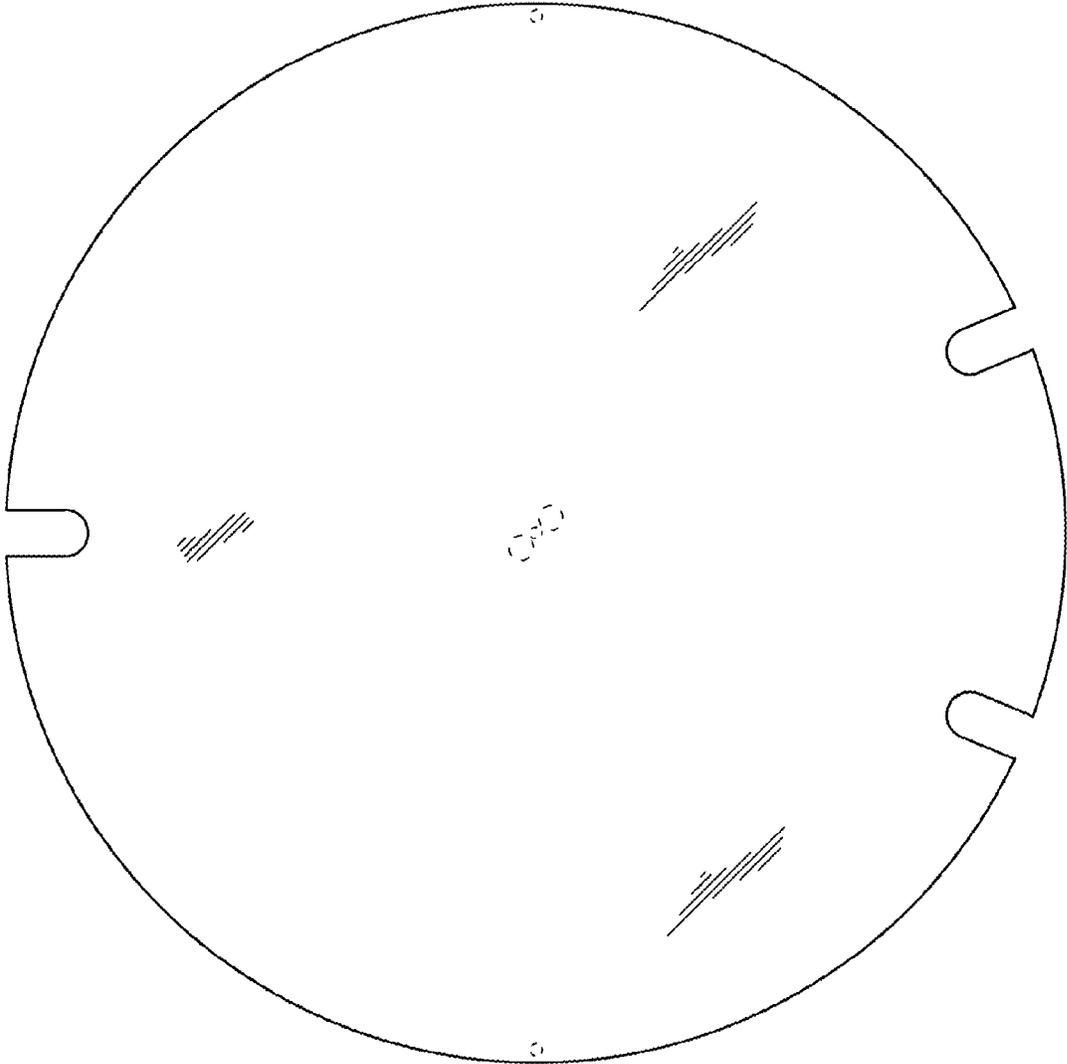


FIG. 3

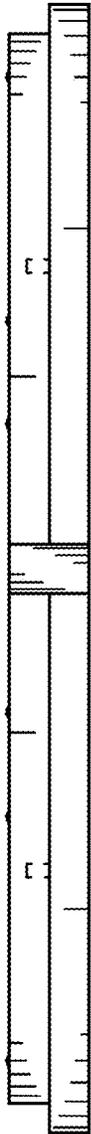


FIG. 4

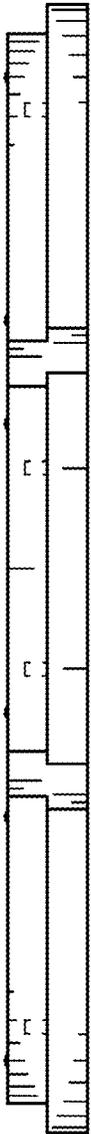


FIG. 5



FIG. 6



FIG. 7