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(12) **United States Design Patent** (10) **Patent No.:** **US D536,714 S**  
**Braunschweig et al.** (45) **Date of Patent:** **\*\* Feb. 13, 2007**

(54) **ABRASIVE ARTICLE WITH HOLES**

(75) Inventors: **Ehrich J. Braunschweig**, Woodbury, MN (US); **Edward J. Woo**, Woodbury, MN (US); **Charles J. Studiner, IV**, Cottage Grove, MN (US)

(73) Assignee: **3M Innovative Properties Company**, St. Paul, MN (US)

(\*\*) Term: **14 Years**

(21) Appl. No.: **29/238,556**

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(51) **LOC (8) Cl.** ..... **15-09**

(52) **U.S. Cl.** ..... **D15/126**

(58) **Field of Classification Search** ..... D15/124,  
D15/126, 138, 139; 451/47, 56, 324, 443,  
451/541, 544, 547, 548-551  
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,307,312	A	*	1/1943	Whiting	.....	451/548
2,358,881	A		9/1944	Koether		
2,664,217	A		8/1951	Taylor		
2,749,681	A		6/1956	Reidenbach		
2,749,683	A		6/1958	Soderman		

(Continued)

FOREIGN PATENT DOCUMENTS

EP	0 285 042	A1	10/1988
EP	1 488 888	A1	12/2004
EP	1 524 077	A1	4/2005
FR	2 659 892		9/1991
GB	2 017 485	A	10/1979
GB	2 057 483	A	1/1986
GB	2 162 213	A	1/1986
WO	WO 03/020474	A1	3/2003

OTHER PUBLICATIONS

Patent Application Ser. No. 11/229,281, Woo et al., Filed Sep. 16, 2005.

Patent Application Ser. No. 11/228,896, Rambosek et al., Filed Sep. 16, 2005.

Patent Application Ser. No. 29/238,541, Braunschweig et al., Filed Sep. 16, 2005.

Patent Application Ser. No. 29/238,542, Braunschweig et al., Filed Sep. 16, 2005.

Patent Application Ser. No. 29/246,256, Shimizu et al., Filed Mar. 28, 2006.

Patent Application Ser. No. 29/246,257, Shimizu et al., Filed Jan. 28, 2006.

Patent Application Ser. No. 29/246,258, Shimizu et al., Filed Mar. 28, 2006.

Patent Application Ser. No. 29/246,259, Shimizu et al., Filed Mar. 28, 2006.

Patent Application Ser. No. 29/246,260, Shimizu et al., Filed Mar. 28, 2006.

Patent Application Ser. No. 29/246,261, Shimizu et al., Filed Mar. 28, 2006.

Patent Application Ser. No. 29/253,148, Braunschweig, Filed Feb. 1, 2006.

Patent Application Ser. No. 29/253,110, Braunschweig, Filed Feb. 1, 2006.

Patent Application Ser. No. 29/253,085, Braunschweig, Filed Feb. 2, 2006.

Patent Application Ser. No. 29/253,084, Braunschweig, Filed Feb. 1, 2006.

*Primary Examiner*—Antoine D. Davis

*Assistant Examiner*—Patricia Palasik

(57) **CLAIM**

The ornamental design for an abrasive article with holes, as shown and described.

**DESCRIPTION**

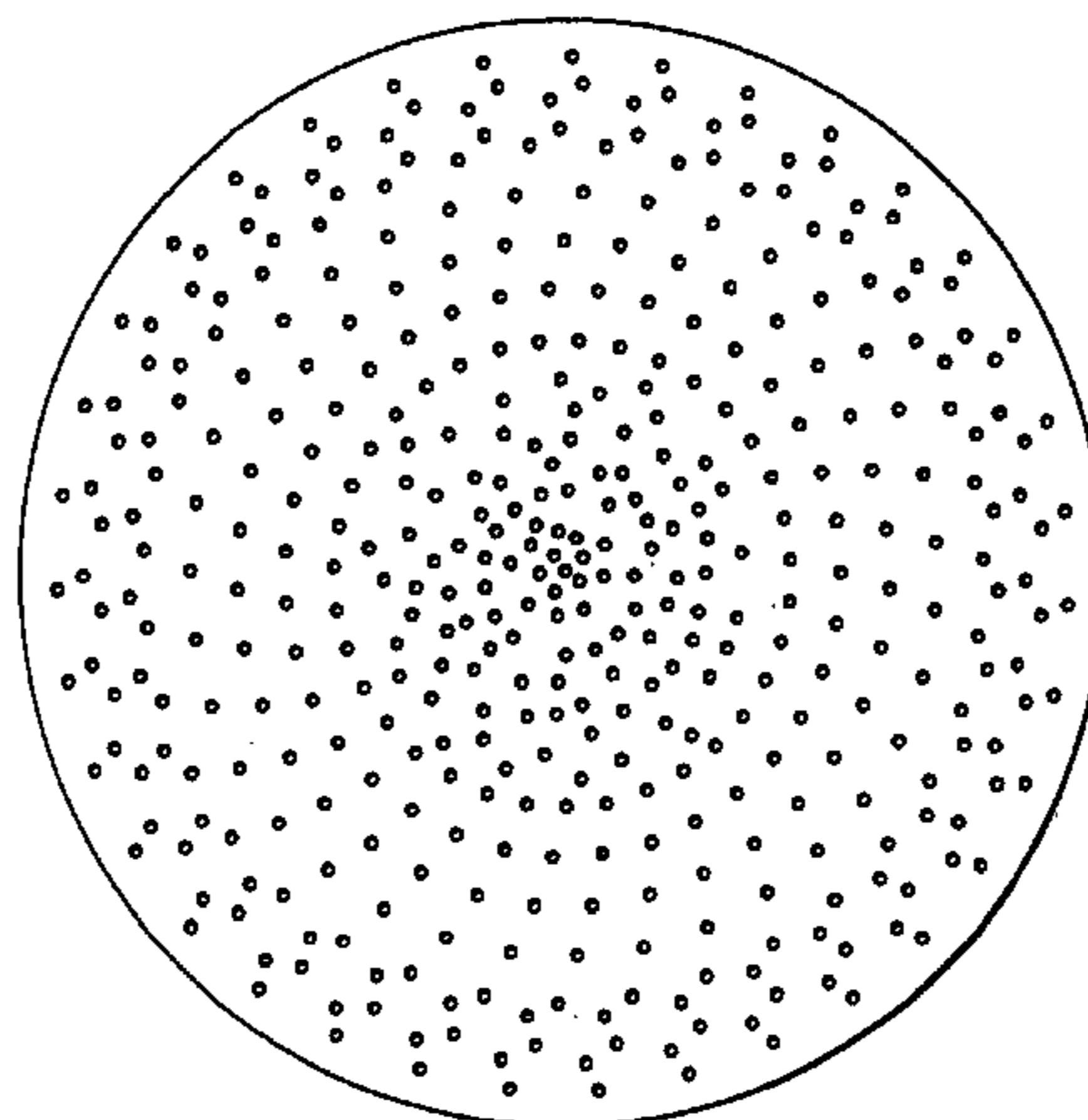
FIG. 1 is a top perspective view of an abrasive article with holes, as shown;

FIG. 2 is a top view thereof;

FIG. 3 is a bottom view thereof; and,

FIG. 4 is a front side view thereof; the left, right, and back side views being identical thereto.

**1 Claim, 2 Drawing Sheets**

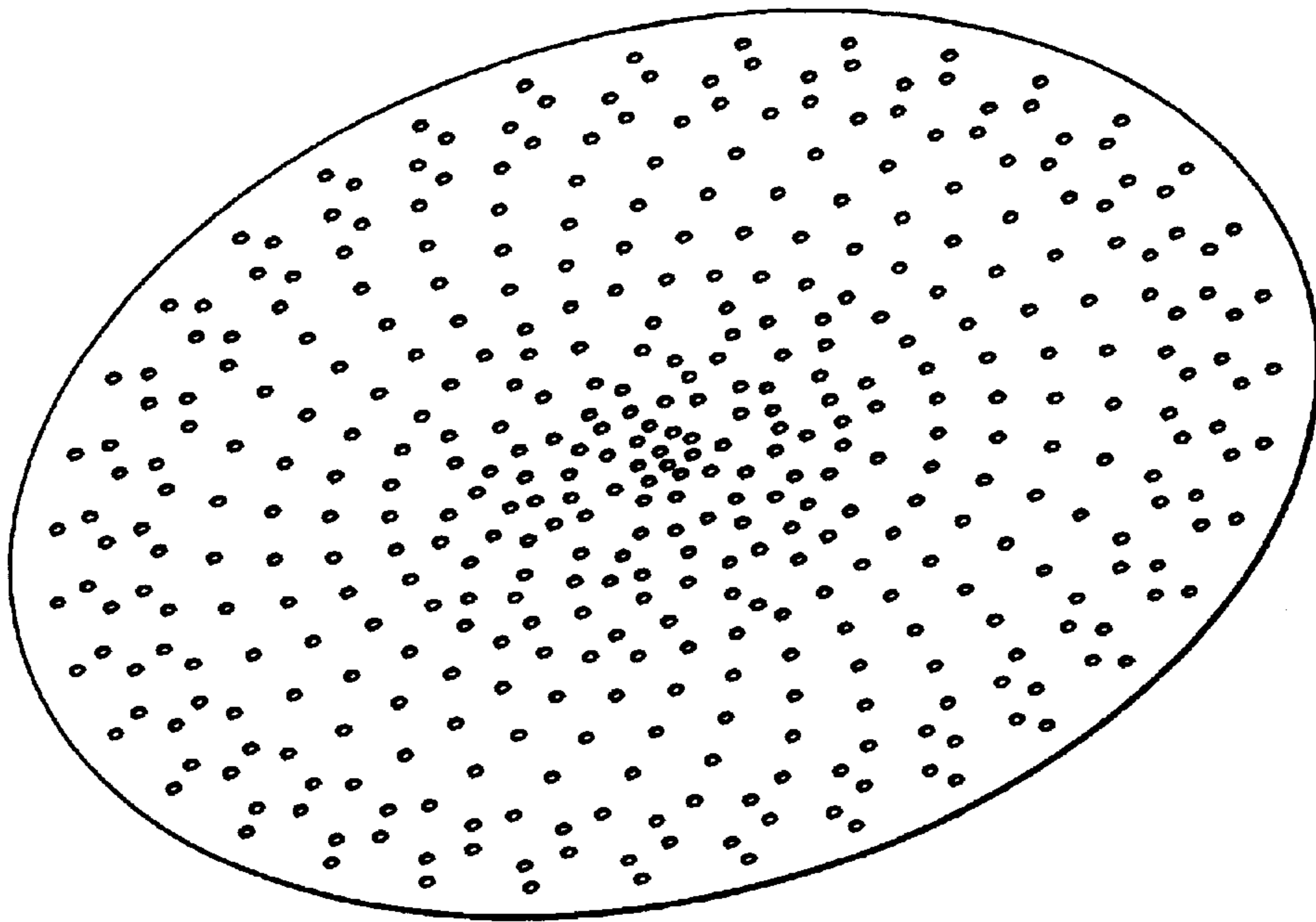


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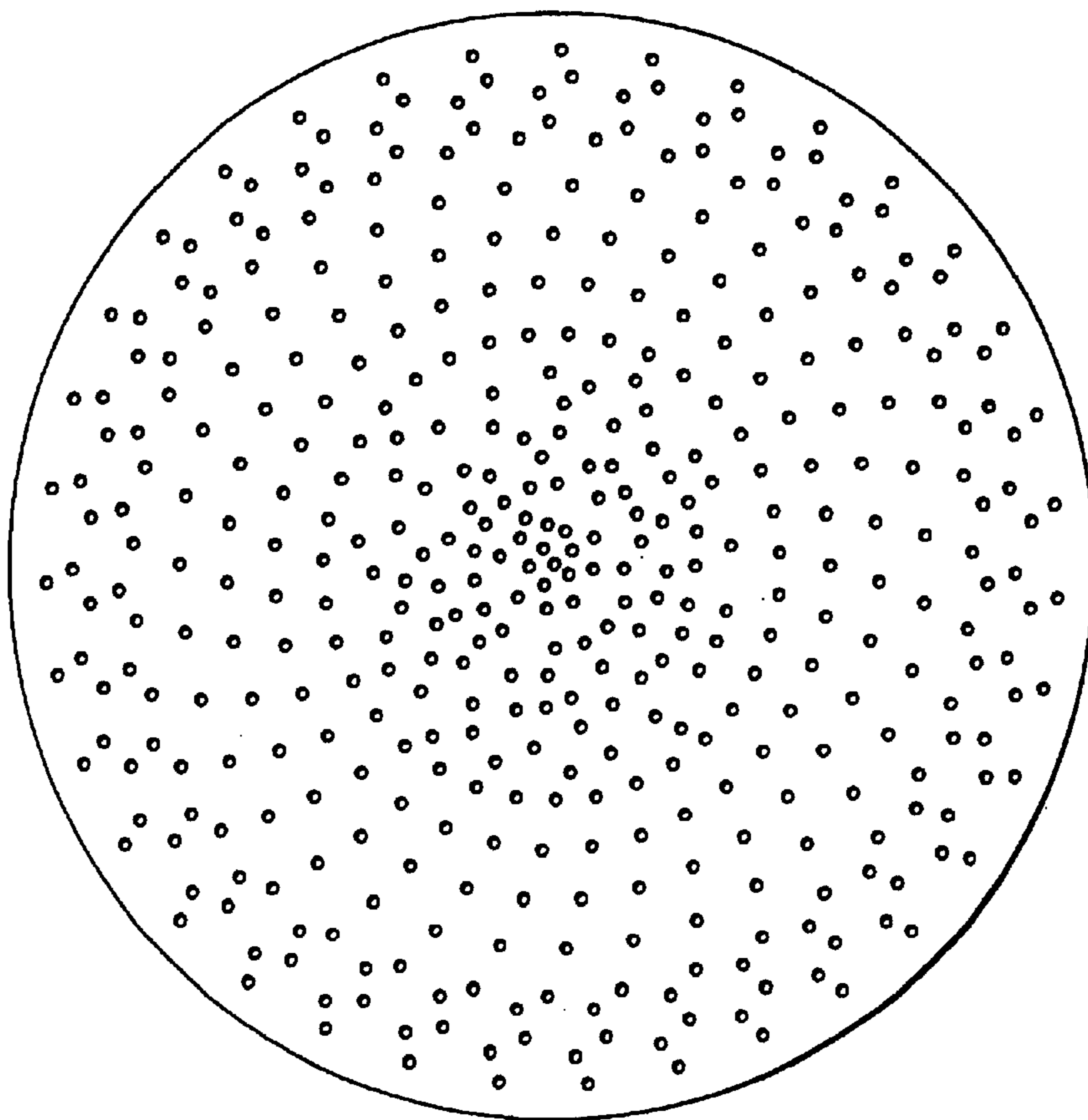
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U.S. PATENT DOCUMENTS					
2,838,890	A	6/1958 McIntyre	5,989,112	A	11/1999 Long et al.
3,021,649	A	2/1962 Robbins	D421,029	S	2/2000 Cha
3,353,308	A	11/1967 Zane	6,059,644	A	5/2000 Manor et al.
3,386,214	A	8/1968 Shoemaker	D426,560	S *	6/2000 Texler et al. .... D15/139
3,426,486	A	2/1969 Kubsh	6,077,156	A	6/2000 Amin et al.
3,932,966	A	1/1976 Stern	6,190,246	B1	2/2001 Parrott et al.
4,062,152	A	12/1977 Mehrer	6,312,325	B1	11/2001 Van Osenbruggen
4,158,935	A	6/1979 Robert	6,368,199	B1	4/2002 Van Osenbruggen
4,287,685	A	9/1981 Marton	6,371,842	B1 *	4/2002 Romero ..... 451/548
D277,486	S *	2/1985 Yanagiura ..... D15/126	D460,767	S	7/2002 Kim et al.
4,631,220	A	12/1986 Clifton	6,419,574	B1 *	7/2002 Takahashi et al. .... 451/548
4,964,243	A	10/1990 Reiter	6,575,821	B2	6/2003 Jöst
4,964,245	A	10/1990 Braasch	2003/0003856	A1	1/2003 Swei
5,007,206	A	4/1991 Paterson	2003/0054746	A1	3/2003 Nussbaumer et al.
5,022,191	A	6/1991 Broido	2003/0159363	A1	8/2003 Chesley et al.
5,667,433	A	9/1997 Mallon	2004/0072510	A1	4/2004 Kinoshita et al.
5,674,122	A	10/1997 Krech	2006/0019579	A1	1/2006 Braunschweig
5,807,161	A	9/1998 Manor et al.	2006/0160481	A1 *	7/2006 Masaki ..... 451/548
5,810,650	A	9/1998 Jöst			

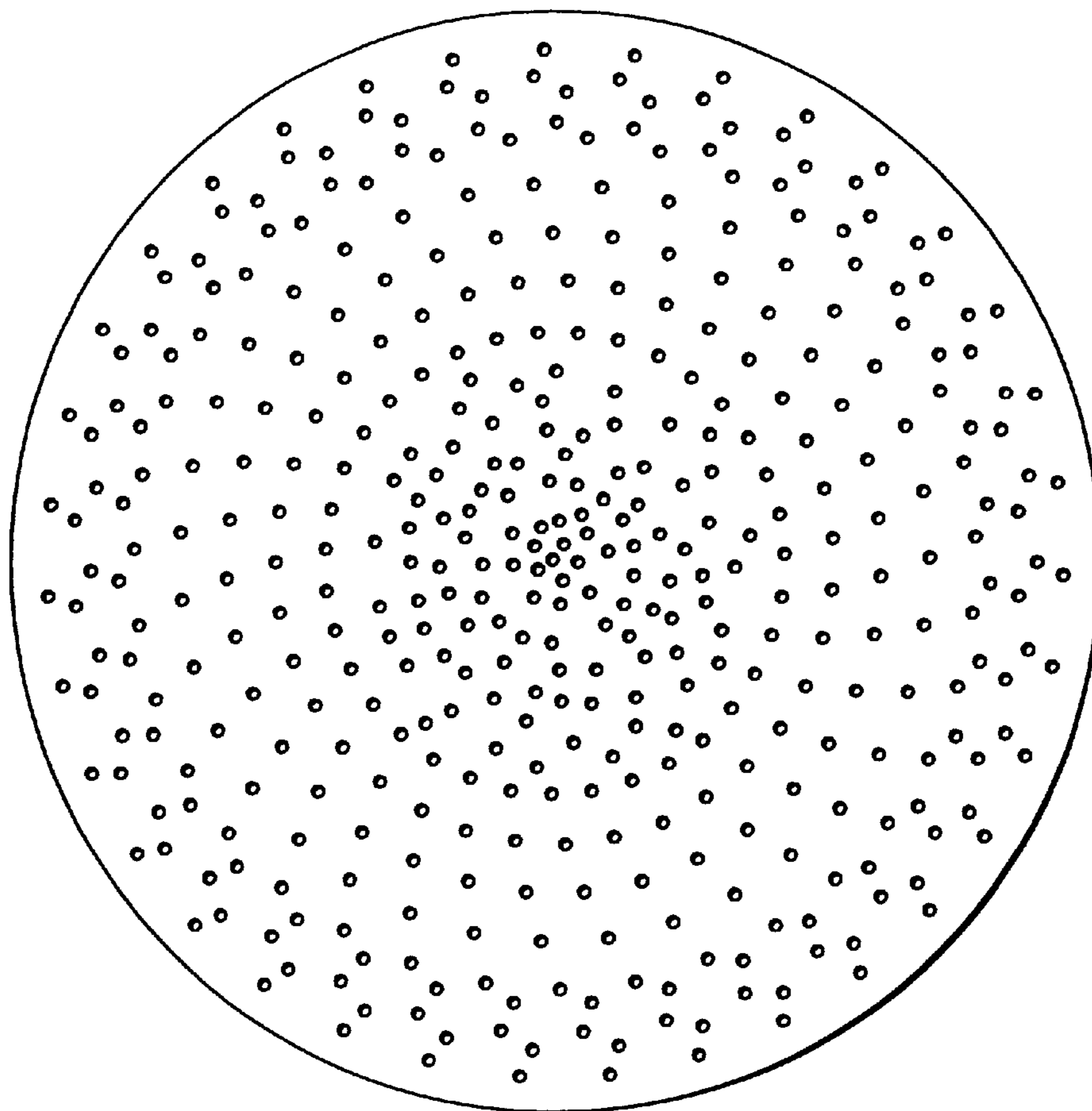
\* cited by examiner



*Fig. 1*



*Fig. 2*



*Fig. 3*



*Fig. 4*