



US00D532800S

(12) **United States Design Patent** (10) **Patent No.:** **US D532,800 S**
Braunschweig et al. (45) **Date of Patent:** **** Nov. 28, 2006**

(54) **ABRASIVE ARTICLE WITH HOLES**

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

5,807,161 A 9/1998 Manor et al.
5,810,650 A 9/1998 Jöst
5,989,112 A 11/1999 Long et al.
D421,029 S * 2/2000 Cha D15/139
6,059,644 A 5/2000 Manor et al.
D426,560 S 6/2000 Texler
6,077,156 A 6/2000 Amin et al.
6,190,246 B1 2/2001 Parrott et al.

(Continued)

FOREIGN PATENT DOCUMENTS

(21) Appl. No.: **29/253,084**

(22) Filed: **Feb. 1, 2006**

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

(52) **U.S. Cl.** **D15/126; D8/70**

(58) **Field of Classification Search** D8/62, D8/70; D15/124–126, 138, 139; 451/47, 451/56, 324, 443, 541, 544, 547, 548–551

See application file for complete search history.

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 4/1981
GB 2 162 213 A 1/1986
WO WO 03/020474 A1 3/2003

OTHER PUBLICATIONS

U.S. Appl. No. 11/228,896, Rambosek et al., filed Sep. 16, 2005.

U.S. Appl. No. 11/229,281, Woo et al., filed Sep. 16, 2005.

U.S. Appl. No. 29/238,541, Braunschweig et al., filed Sep. 16, 2005.

(Continued)

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Assistant Examiner—Patricia Palasik

(57) **CLAIM**

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

DESCRIPTION

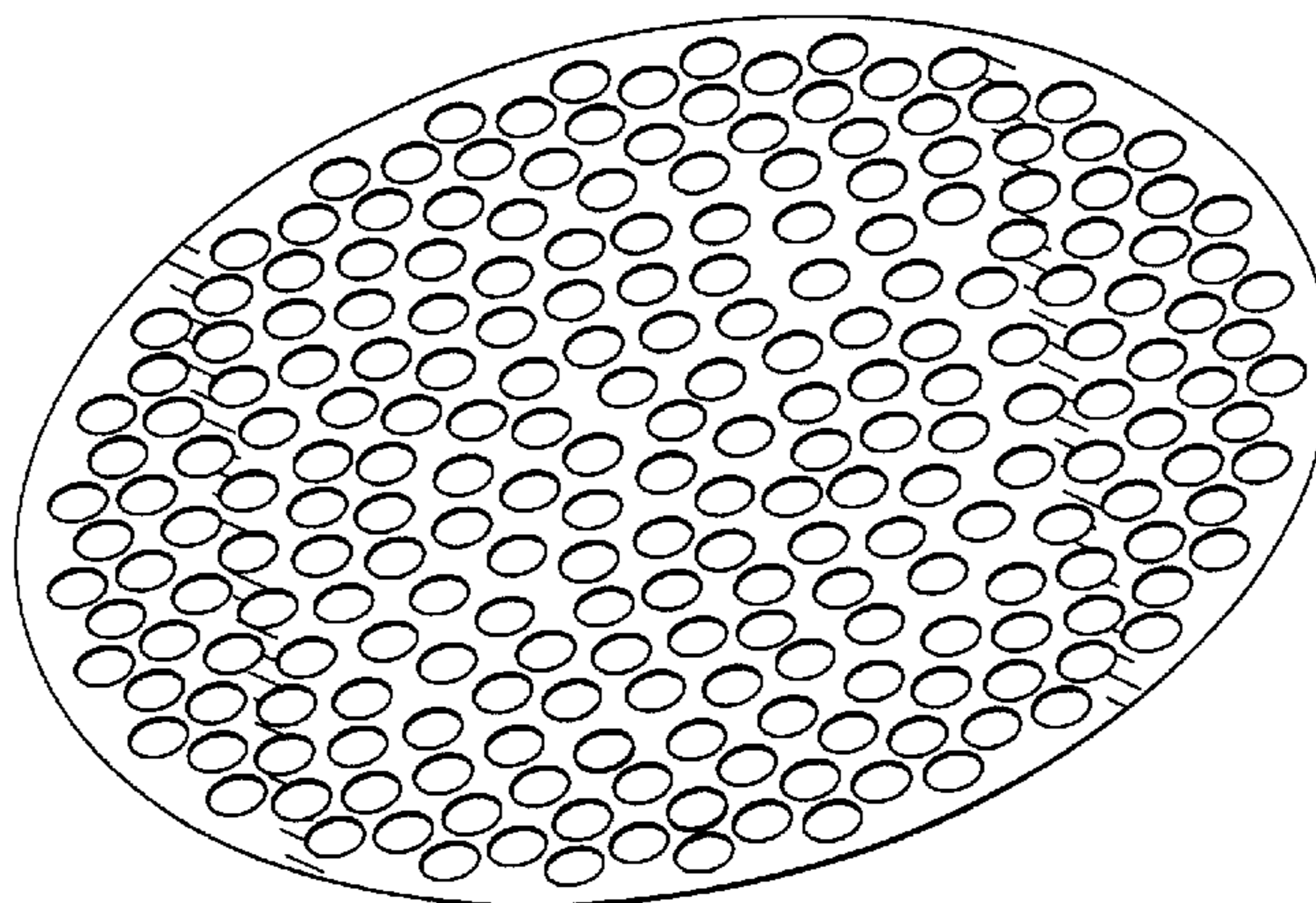
FIG. 1 is a top perspective view of an abrasive article with holes, as shown;
FIG. 2 is a top view thereof;
FIG. 3 is a bottom view thereof; and,
FIG. 4 is a front side view thereof; the left, right, and back side views being identical thereto.

1 Claim, 2 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,307,312 A 1/1943 Whiting
2,358,861 A * 9/1944 Koether 451/548
2,564,217 A * 8/1951 Taylor 451/541
2,749,681 A 6/1956 Reidenbach
2,749,683 A * 6/1956 Soderman 451/550
2,838,890 A 6/1958 McIntyre
3,021,649 A 2/1962 Robbins
3,353,308 A 11/1967 Zane
3,386,214 A * 6/1968 Shoemaker 451/488
3,426,486 A * 2/1969 Kubsh 451/488
3,932,966 A 1/1976 Stern
4,062,152 A 12/1977 Mehrer
4,158,935 A 6/1979 Robert
4,287,685 A 9/1981 Marton
D277,486 S 2/1985 Yanagiura
4,631,220 A 12/1986 Clifton
4,964,243 A 10/1990 Reiter
4,964,245 A 10/1990 Braasch
5,007,206 A 4/1991 Paterson
5,022,191 A * 6/1991 Broido 451/550
5,667,433 A * 9/1997 Mallon 451/287
5,674,122 A 10/1997 Krech



U.S. PATENT DOCUMENTS

6,312,325 B1 11/2001 Van Osenbruggen
6,368,199 B1 4/2002 Van Osenbruggen
6,371,842 B1 4/2002 Romero
D460,767 S * 7/2002 Kim et al. D15/139
6,419,574 B1 7/2002 Takahashi et al.
6,575,821 B1 6/2003 Jöst
2003/0003856 A1 1/2003 Swei
2003/0054746 A1 * 3/2003 Nussbaumer et al. 451/548
2003/0159363 A1 8/2003 Chesley et al.
2004/0072510 A1 * 4/2004 Kinoshita et al. 451/56
2006/0019579 A1 1/2006 Braunschweig

OTHER PUBLICATIONS

U.S. Appl. No. 29/238,542, Braunschweig et al., filed Sep. 16, 2005.
U.S. Appl. No. 29/238,556, Braunschweig et al., filed Sep. 16, 2005.
U.S. Appl. No. 29/246,256 , Shimizu et al., filed Mar. 28, 2006.

U.S. Appl. No. 29/246,257, Shimizu et al., filed Mar. 28, 2006.

U.S. Appl. No. 29/246,258 Shimizu et al., filed Mar. 28, 2006.

U.S. Appl. No. 29/246,259, Shimizu et al., filed Mar. 28, 2006.

U.S. Appl. No. 29/246,260, Shimizu et al., filed Mar. 28, 2006.

U.S. Appl. No. 29/246,261, Shimizu et al., filed Mar. 28, 2006.

U.S. Appl. No. 29/253,148, Braunschweig, filed Feb. 1, 2006.

U.S. Appl. No. 29/253,110, Braunschweig, filed Feb. 1, 2006.

U.S. Appl. No. 29/253,085, Braunschweig, filed Feb. 1, 2006.

* cited by examiner

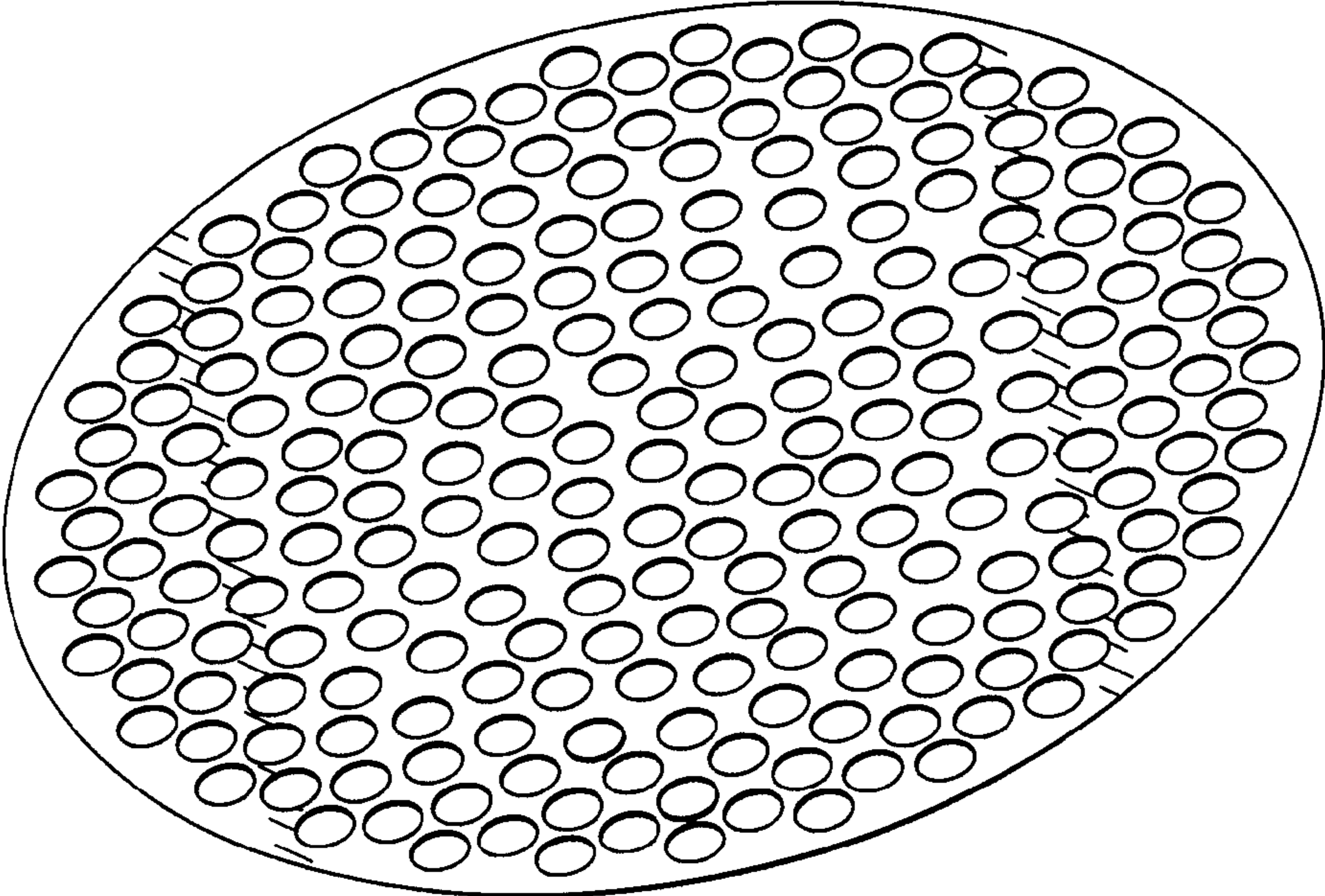


Fig. 1

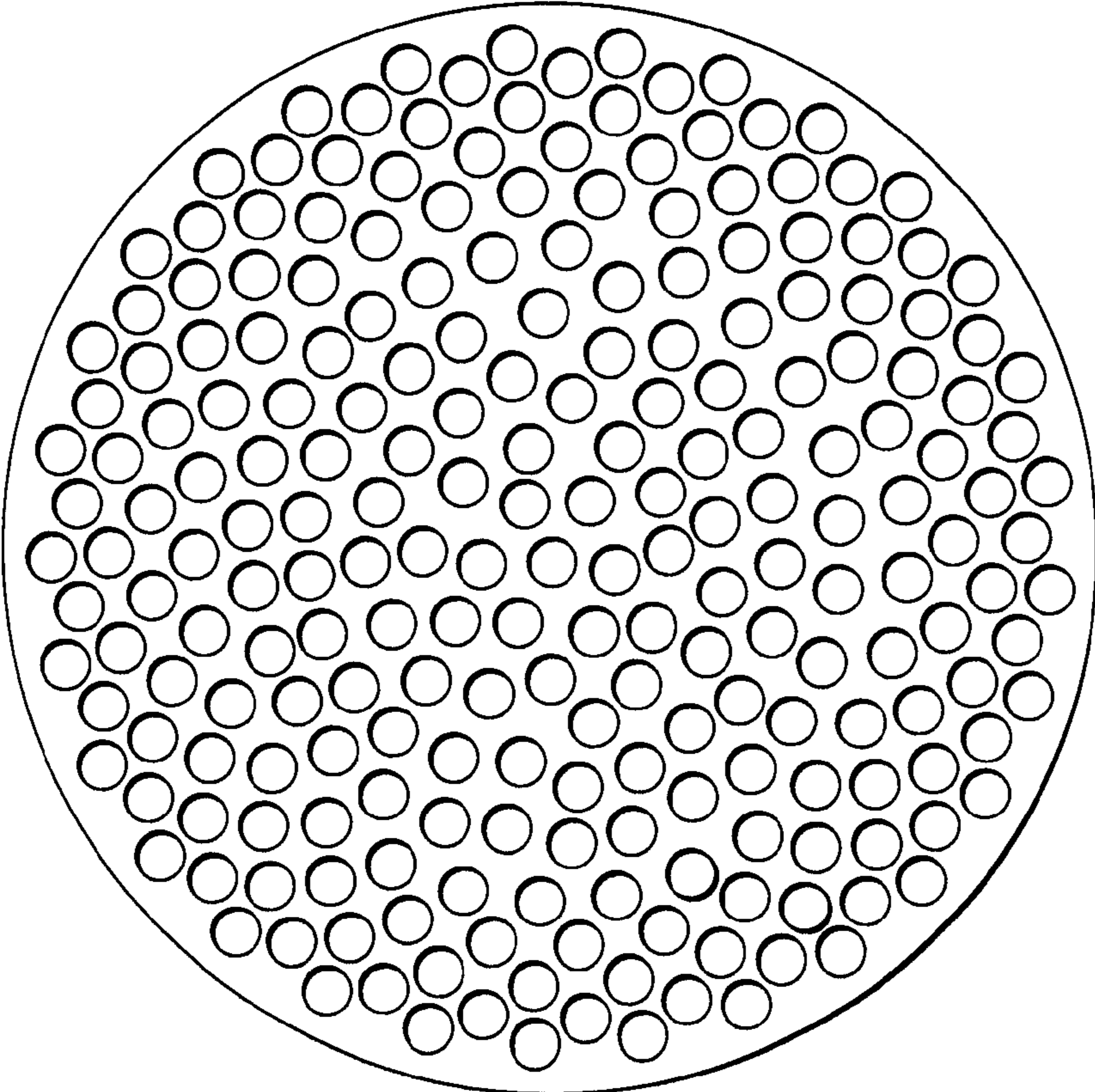


Fig. 2

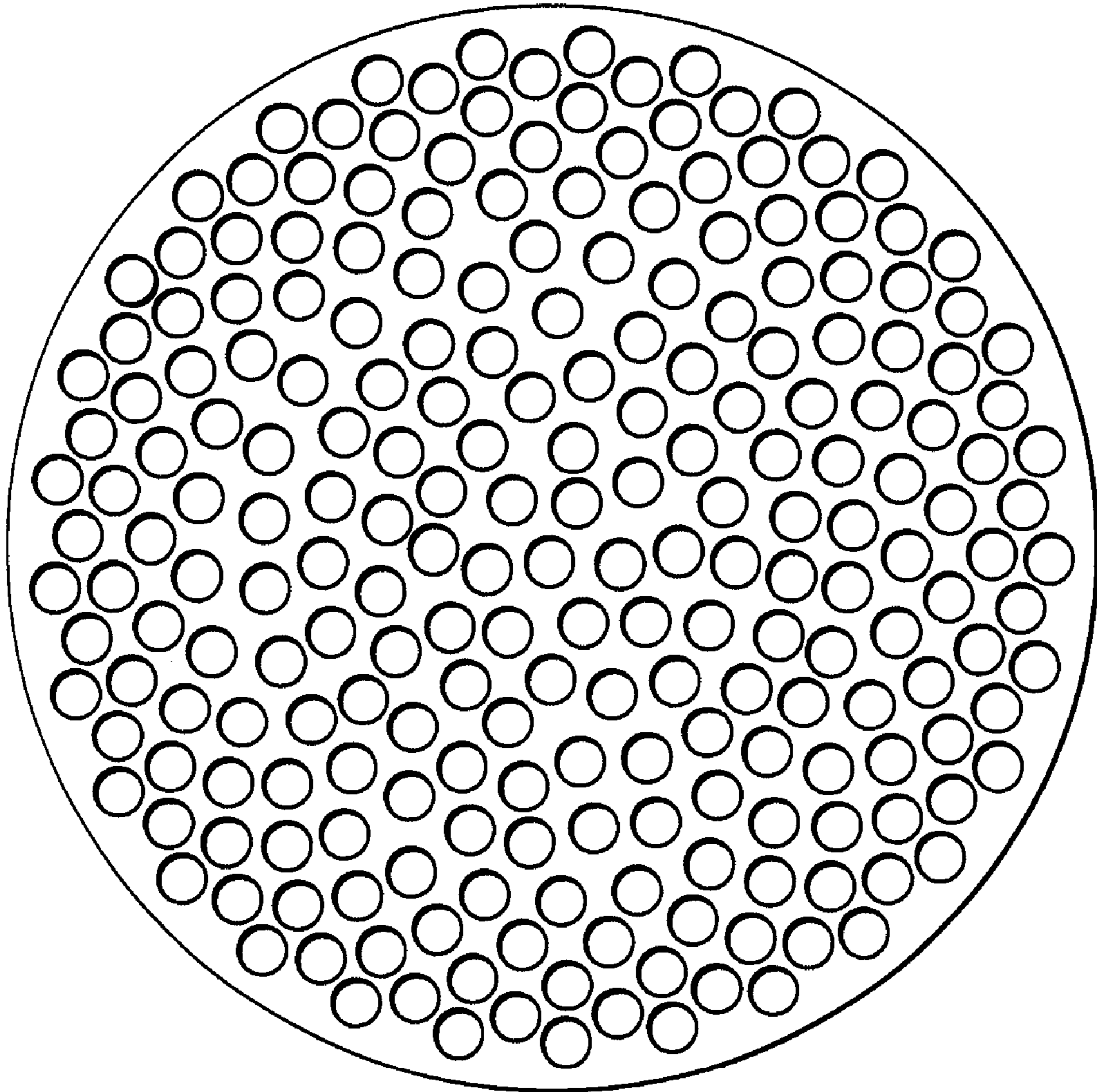


Fig. 3



Fig. 4