



US00D797847S

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

(10) **Patent No.:** **US D797,847 S**

(45) **Date of Patent:** **\*\* Sep. 19, 2017**

(54) **ABACUS**

(71) Applicant: **Shi Zhang**, Beijing (CN)

(72) Inventor: **Shi Zhang**, Beijing (CN)

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

(21) Appl. No.: **29/558,322**

(22) Filed: **Mar. 16, 2016**

(51) **LOC (10) Cl.** ..... **19-07**

(52) **U.S. Cl.**  
USPC ..... **D19/59**

(58) **Field of Classification Search**

USPC ..... D19/59-64, 31; D18/6; 434/109,  
434/188-189, 191-197, 200-205,  
434/209-211; D21/337, 393; 273/260,  
273/271; D10/46.1, 70; D28/67;  
D8/356; D7/699; D9/645; D6/306;  
708/141; 235/123; D99/26  
CPC . G06C 1/00; G09B 19/02; G09B 1/10; G09B  
1/02; A63F 9/0073; A63F 3/00634; G06F  
15/0216; B60R 21/207; B64D 11/06  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

- 2,655,737 A \* 10/1953 Don Dero ..... G09B 19/02  
434/203
- D181,754 S \* 12/1957 Schott ..... D18/6
- 2,872,742 A \* 2/1959 Schott ..... G06C 1/00  
434/203
- 3,076,272 A \* 2/1963 Schott ..... G06C 1/00  
434/203
- 3,131,488 A \* 5/1964 Slater ..... G09B 19/02  
434/195
- 3,151,404 A \* 10/1964 Schott ..... G06C 1/00  
235/123
- 3,381,394 A \* 5/1968 Munro ..... G09B 19/02  
434/193

- 3,387,392 A \* 6/1968 Kurz ..... G06C 1/00  
235/123
- 3,455,034 A \* 7/1969 Schott ..... G09B 19/02  
434/203
- 3,508,348 A \* 4/1970 Harada Kogane ..... G06C 1/00  
434/203
- 3,633,287 A \* 1/1972 Squires ..... G09B 19/02  
434/189
- 3,688,418 A \* 9/1972 Wilson ..... G06C 1/00  
434/203
- 3,731,401 A \* 5/1973 Kojima ..... G09B 19/02  
434/203
- 3,871,114 A \* 3/1975 Honig ..... G09B 19/02  
434/196
- 3,982,331 A \* 9/1976 Solomon ..... G09B 19/02  
273/271
- D248,332 S \* 6/1978 Bailey ..... D21/393
- D249,697 S \* 9/1978 Hester ..... D19/59
- 4,340,232 A \* 7/1982 Shaw ..... A63F 3/00634  
273/260
- D282,669 S \* 2/1986 Conlee, Jr. .... D18/6
- D284,975 S \* 8/1986 Kwok ..... D18/6

(Continued)

*Primary Examiner* — Ian Simmons  
*Assistant Examiner* — Mark Cavanna

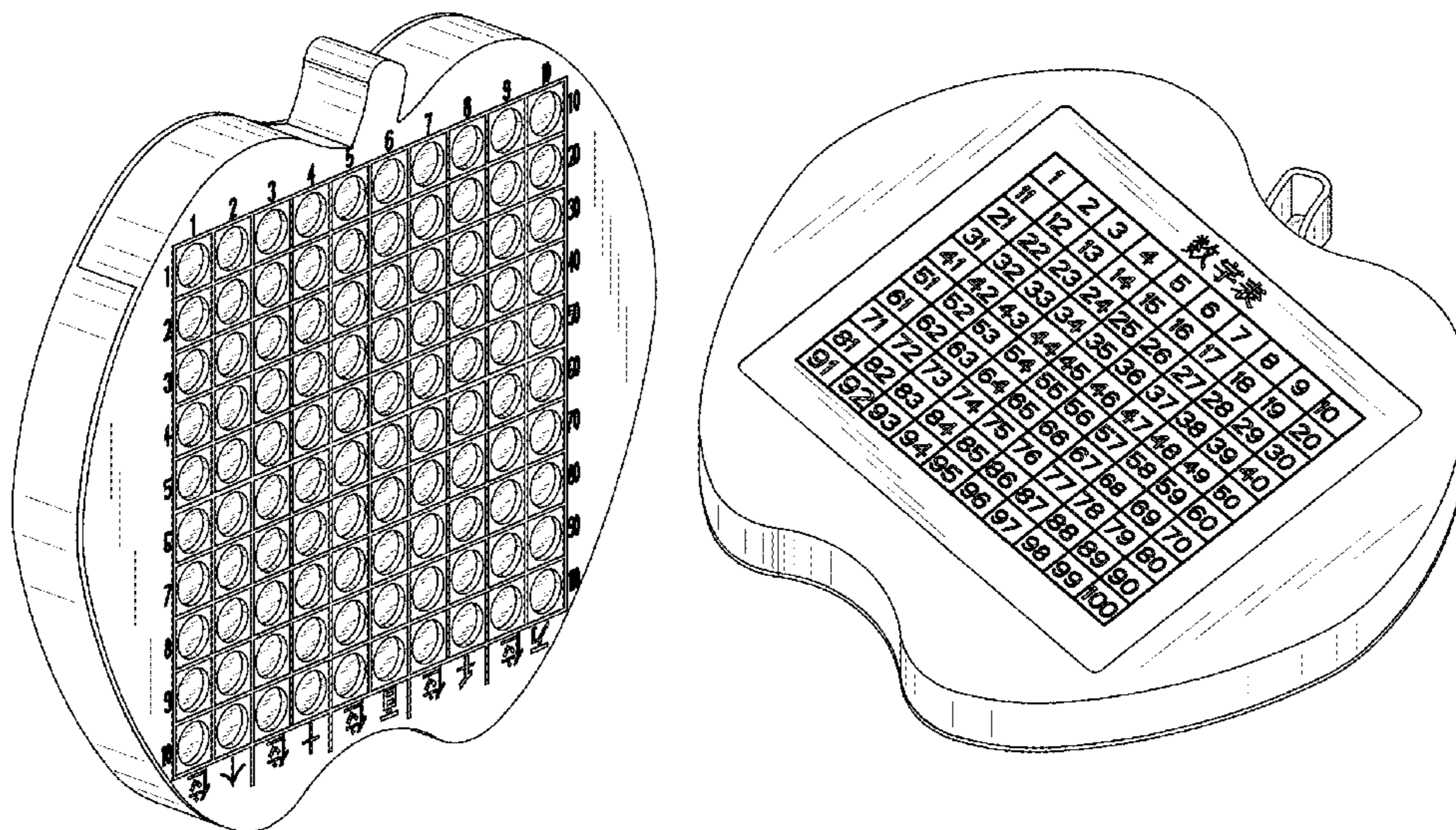
(57) **CLAIM**

The ornamental design for an abacus, as shown and described.

**DESCRIPTION**

FIG. 1 is a front elevation view of the abacus showing my new design;  
FIG. 2 is a back elevation view thereof;  
FIG. 3 is a left elevation view thereof;  
FIG. 4 is a right elevation view thereof;  
FIG. 5 is a top view thereof;  
FIG. 6 is a bottom view thereof;  
FIG. 7 is a perspective view thereof; and,  
FIG. 8 is another perspective view thereof.

**1 Claim, 5 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

4,812,124 A \* 3/1989 Colodner ..... G06C 1/00  
434/203  
4,884,973 A \* 12/1989 Pak ..... G09B 19/02  
434/205  
D313,628 S \* 1/1991 Delcambre ..... D19/59  
D313,700 S \* 1/1991 Zoldessy ..... D6/306  
4,993,952 A \* 2/1991 Yeh ..... G09B 19/02  
434/191  
5,134,692 A \* 7/1992 Hiromori ..... G06C 1/00  
708/141  
D339,754 S \* 9/1993 Cranmer ..... D10/46.1  
D370,498 S \* 6/1996 Kelly ..... D19/60  
D390,793 S \* 2/1998 DeLong, Sr. .... D10/70  
5,725,380 A \* 3/1998 Kennelly ..... G09B 19/02  
434/192  
D433,055 S \* 10/2000 Hanthorn ..... D18/6  
6,712,614 B1 \* 3/2004 Henderson ..... B64D 11/06205  
434/202  
D489,971 S \* 5/2004 Tamez ..... D28/67

D513,762 S \* 1/2006 Young ..... 434/203  
D528,405 S \* 9/2006 Kelleghan ..... D8/356  
D579,352 S \* 10/2008 Brodie ..... D10/46.1  
D615,828 S \* 5/2010 Shamoan ..... D7/699  
D641,535 S \* 7/2011 Kan ..... D99/37  
D656,202 S \* 3/2012 Fuchs ..... D21/337  
D680,294 S \* 4/2013 Boyer ..... D99/26  
D751,918 S \* 3/2016 Hojaiban ..... D9/645  
D759,751 S \* 6/2016 Jeremiah ..... D19/31  
2006/0228680 A1 \* 10/2006 Cotter ..... G09B 19/02  
434/188  
2007/0166673 A1 \* 7/2007 Frieman ..... G09B 19/02  
434/203  
2008/0280273 A1 \* 11/2008 Lee ..... G06C 1/00  
434/203  
2012/0028229 A1 \* 2/2012 Harte ..... G09B 19/02  
434/203  
2012/0251986 A1 \* 10/2012 Silas-Martin ..... G09B 19/02  
434/203  
2013/0236864 A1 \* 9/2013 Harte ..... G09B 19/02  
434/203

\* cited by examiner

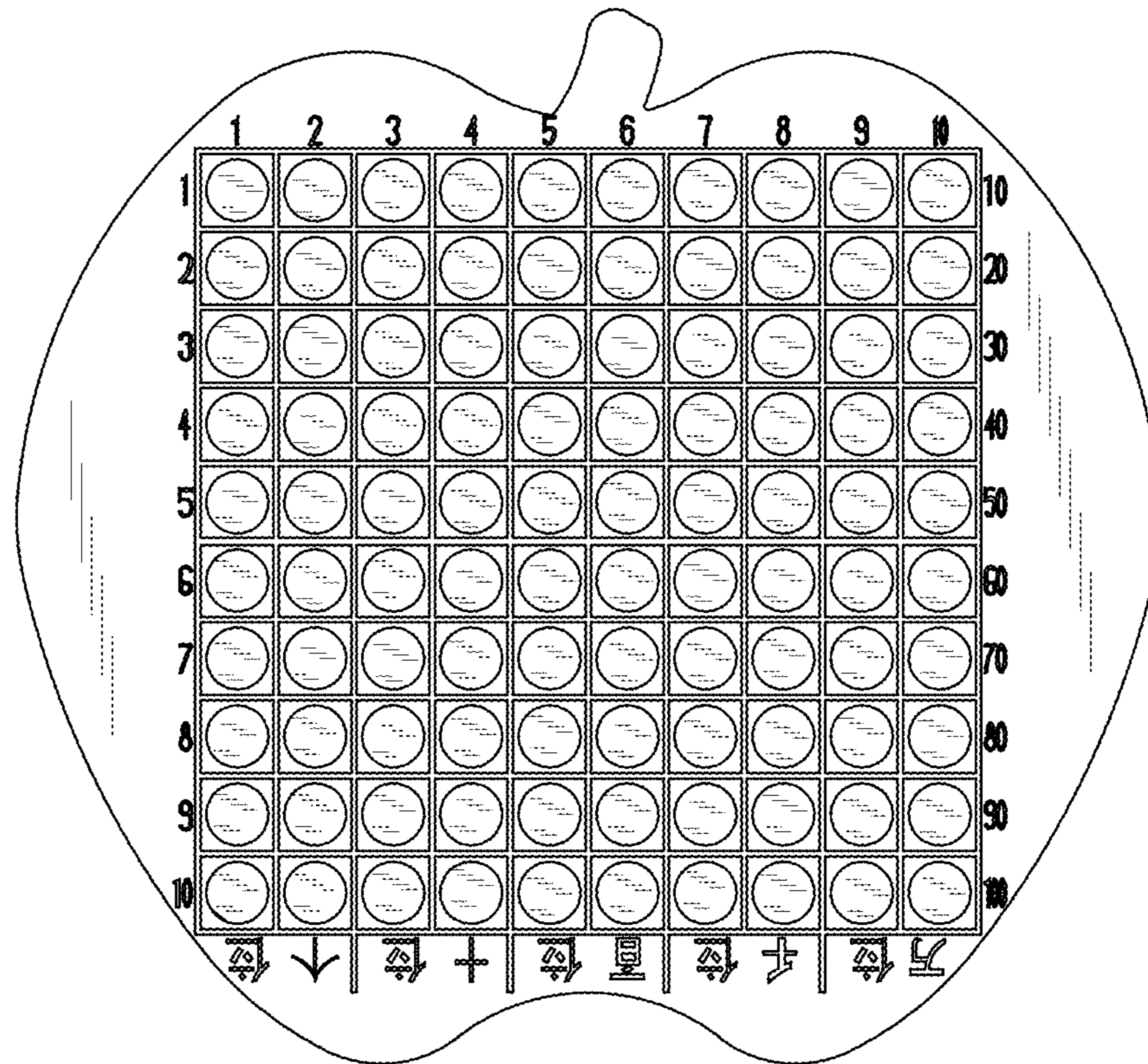


FIG. 1

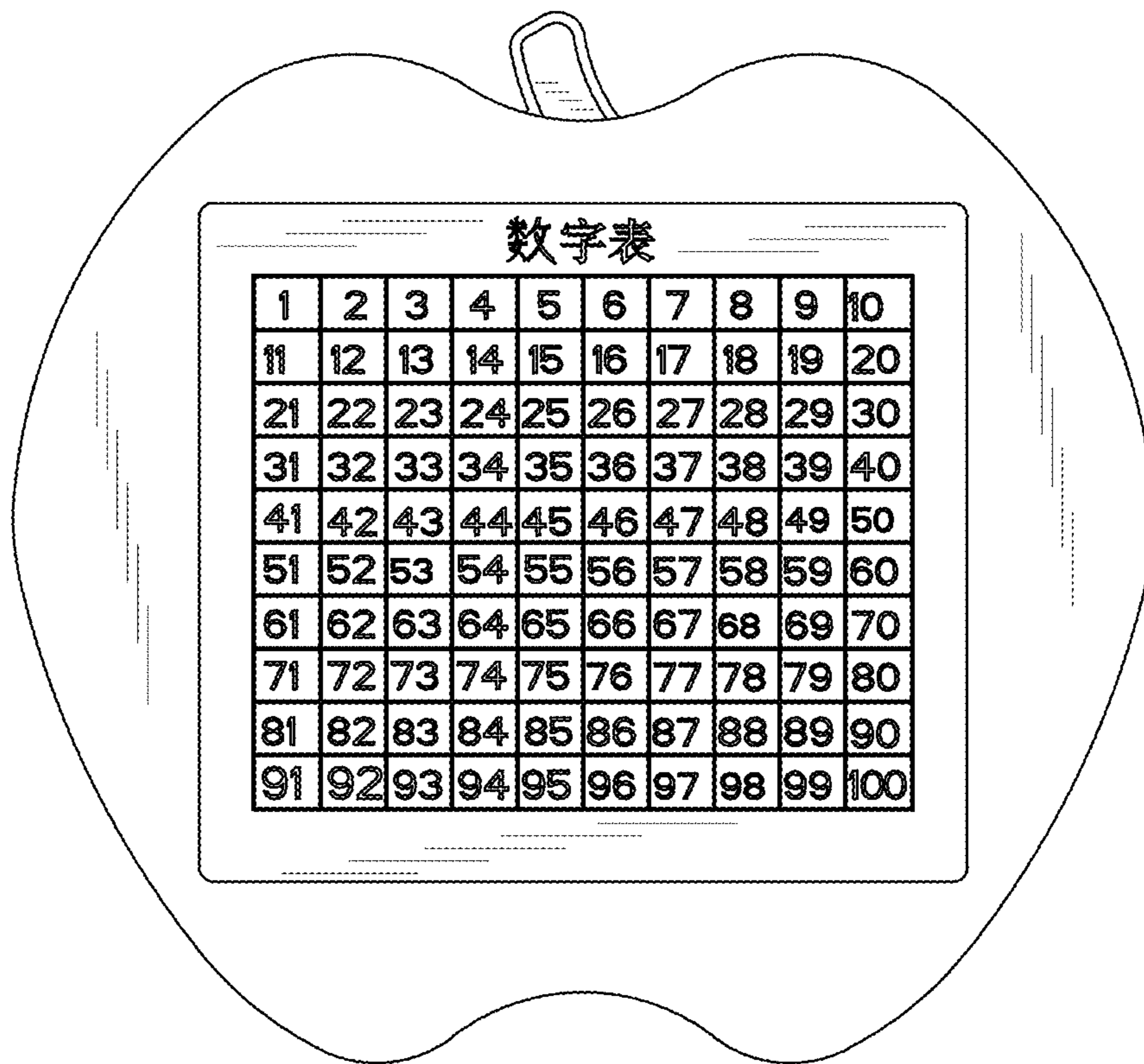


FIG.2

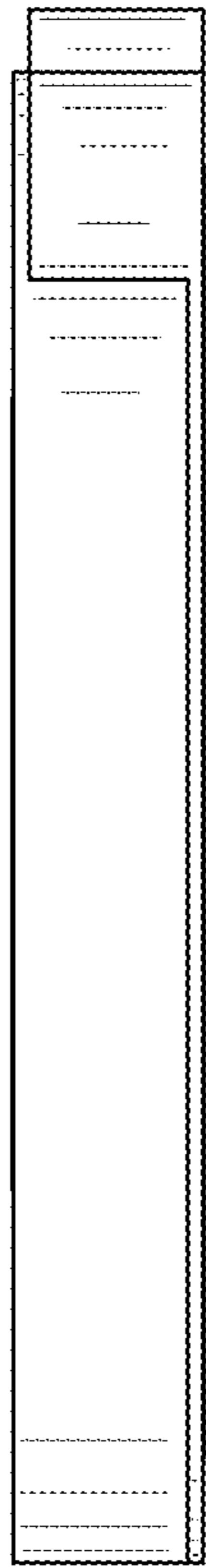


FIG.3

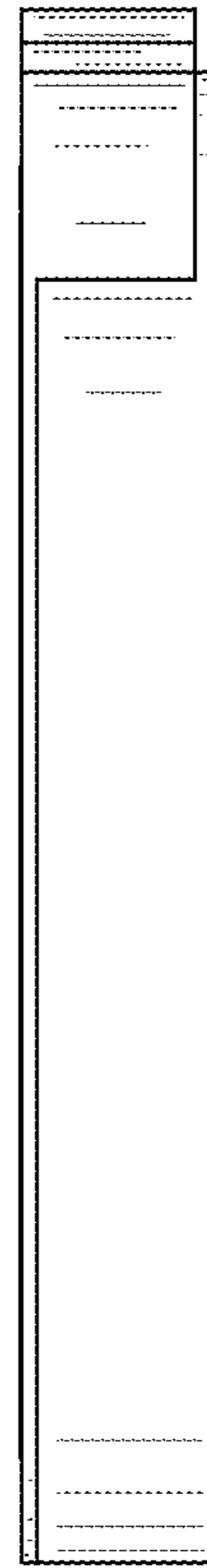


FIG.4

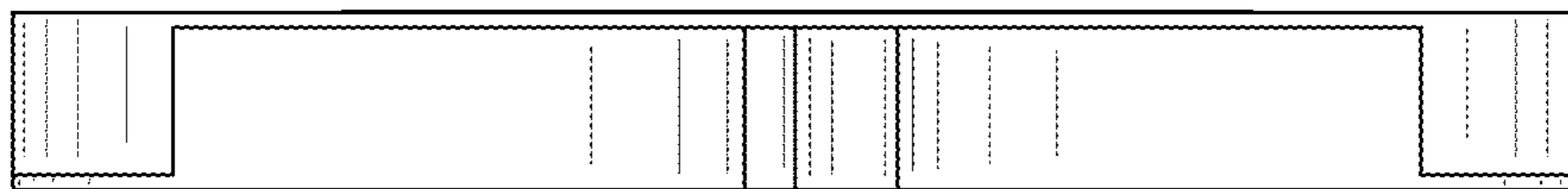


FIG.5

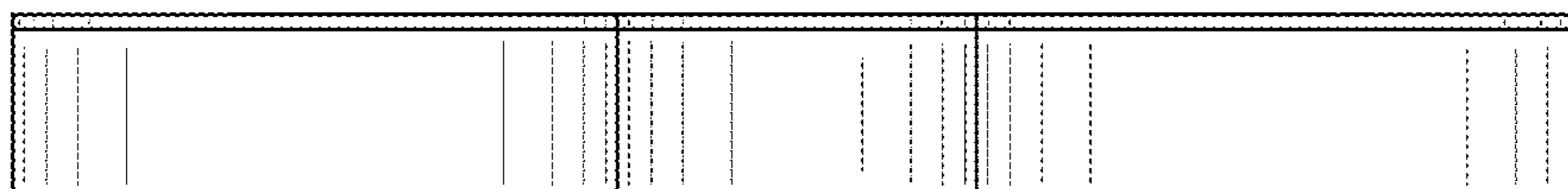


FIG.6

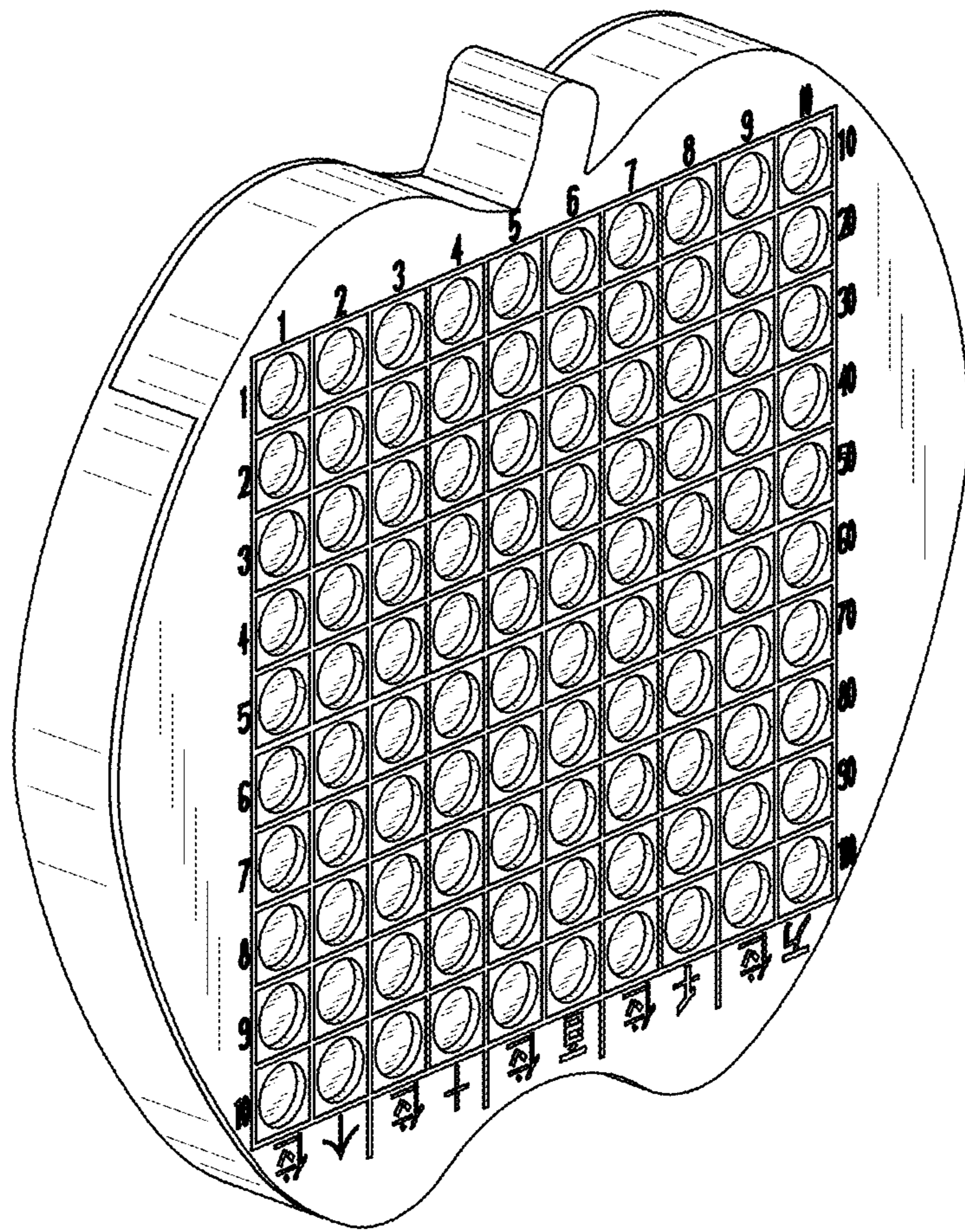


FIG. 7

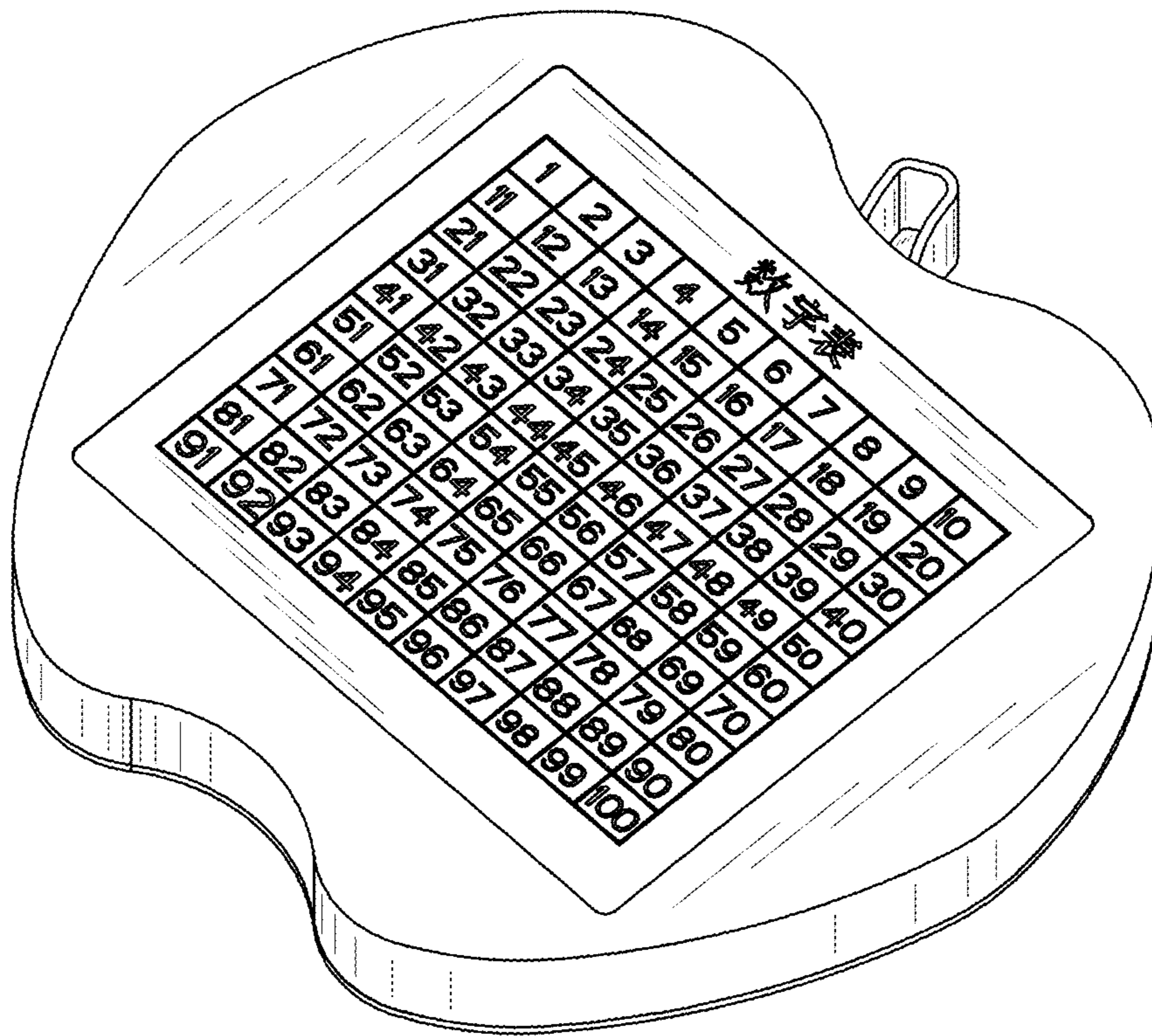


FIG.8