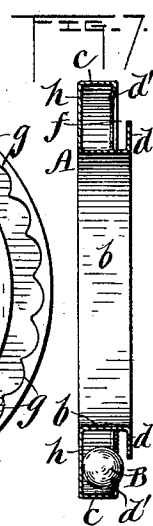
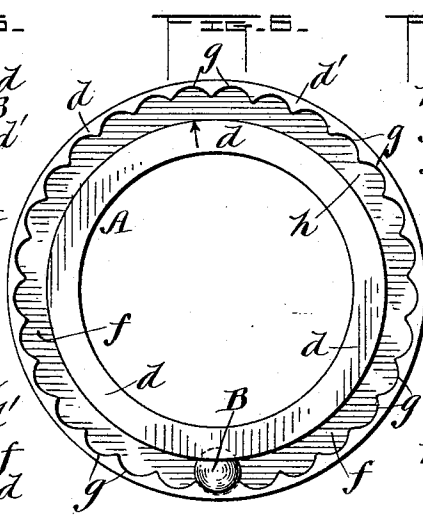
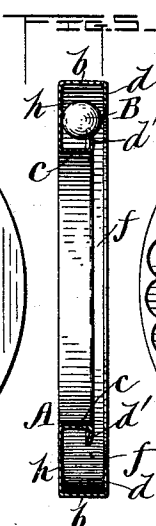
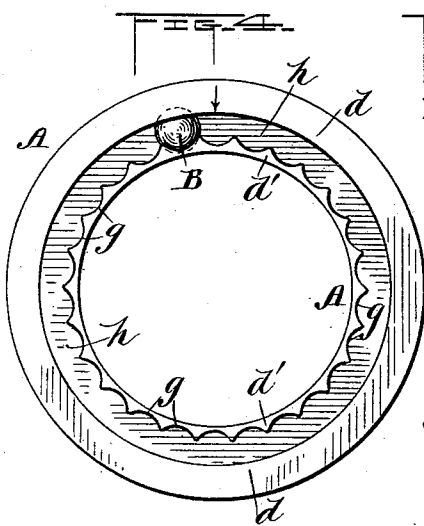
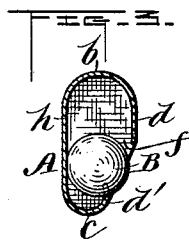
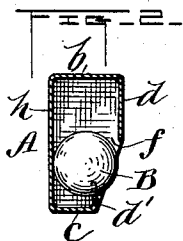
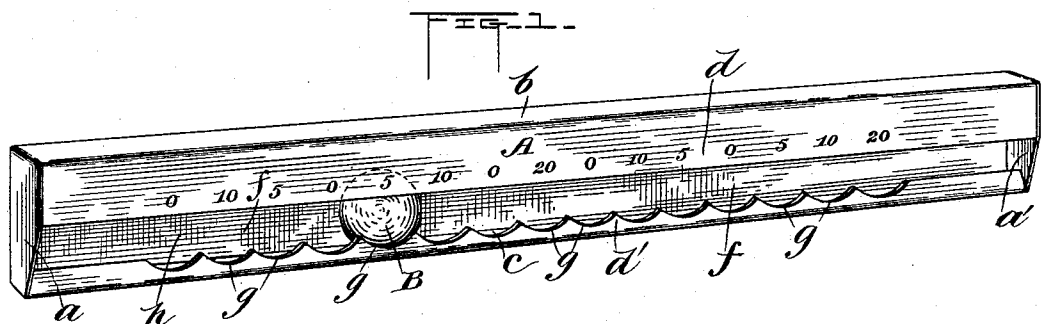


(No Model.)

C. F. SPENCER.
GAME PUZZLE.

No. 489,394.

Patented Jan. 3, 1893.



Witness:
Everance
C. Hines

Witness:
Charles F. Spencer
by his Attorneys
Mason, Fenwick and Lawrence

UNITED STATES PATENT OFFICE.

CHARLES F. SPENCER, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF
TO JAMES C. M. BOSDYK, OF SAME PLACE.

GAME PUZZLE.

SPECIFICATION forming part of Letters Patent No. 489,394, dated January 3, 1893.

Application filed April 16, 1892. Serial No. 429,475. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. SPENCER, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Game Puzzles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to game puzzles, and consists in a rectangular, circular or other suitably shaped device, constructed with an oblong or circular channel way for the travel therein of a ball or marble; said device having a longitudinal or circular passage in its front or top side, and a scalloped or other suitable shaped notched flange extending a short distance from its bottom, said notched flange serving for receiving successively the ball or marble as it passes from end to end, or around the channel way; and the said device having a projecting flange on a plane forward of the vertical plane on which the scalloped or notched flange is located, said flanges serving, in conjunction with the notched flange, for preventing the ball passing out of the channel way, and also serving, with the back or bottom of the device, for guiding the ball in its back and forward movements in the channel way; and the said flange having, if desirable, certain numbers, constituting a game arranged on its surface at points in coincidence with the scallops or notches.

With this invention the game is played by inclining the device, as the mind suggests, and the puzzle is solved by successively seating the ball in the scallops or notches; and any failure of the player, by passing the ball beyond a notch or notches, entails the penalty upon him to roll the ball back to the starting point, and begin over. This game is a very interesting and difficult one to play, and the device is of a simple, cheap and neat character or construction.

In the accompanying drawings, Figure 1 is a perspective view of my improved game puzzle. Fig. 2 is a vertical cross section. Fig. 3 is also a vertical cross section, showing a different shaped casing. Fig. 4 is a plan view

showing the game puzzle made in circular form. Fig. 5 is a vertical cross section of the circular game puzzle shown in Fig. 4. Fig. 6 is a plan view of the game puzzle, slightly changed from the construction shown in Figs. 4 and 5, the notches or scallops being on the outer instead of the inner circle, as in said figures.

Referring to Figs. 1 and 2 of the drawings, A is the casing of the puzzle which, in this instance, is in form of an oblong flat sided tube closed at both ends by attached cap pieces *a a'*, which are adapted to be moved outward in order to insert or remove a ball or marble B, and again forced into position and secured by frictional bind or solder. This casing is made, preferably, of one piece, shaped by a proper machine. The top portion *b* of the oblong tubular casing is wider than the bottom portion *c*, and from the said top portion a pendent flange *d* extends down a proper distance as shown, and from the bottom portion an upturned flange *d'* of less depth than the flange *d* extends a proper distance as shown. Between these flanges a space *f*, the full length of the casing, is left, said space being of less depth than the diameter of the ball or marble B, and the said ball cannot pass out through it, although it is allowed to ride or travel upon the edge of the flange *d'*, from end to end of the casing. The flange *d* is scalloped or notched as indicated at *g*, so that a portion of the surface of the ball may find a seat in each of the notches and remain at rest, if the case is kept still, after it has found a seat in a notch. By leaving the space *f*, and having the top of the case broader than the bottom, and the distance between the back *h* and flange *d* of the case, only a little less than the diameter of the marble or ball B, the ball or marble is compelled to ride on the scalloped or notched edge of the flange *d'*, and at the same time it is guided properly in the channel way formed by the said back and flange. On the front of the flange *d* indices *m*, as numbers, for instance, are marked, for the purpose of enabling players to play a game of say one hundred. Any other numbers may be adopted, and the players may agree upon other numbers for each notch,

count the notches and mark down the results of their playing.

With the construction shown in Figs. 1 and 2, and also Fig. 3, the player simply inclines and rocks the case so as to make the ball move from the first to the second notch. If the ball fails to enter the second notch and passes over it into another notch, it must be brought back and another effort made by a similar manipulation of the case. If the ball on the next move enters the second notch, the player attempts to enter it into the third one and so on until the last notch is reached and the ball becomes seated therein. It has been found a very difficult thing to enter all of the notches and seat the ball therein, and in this lies the difficulty of solving the puzzle and its interesting characteristic is found to exist. By great gentleness in inclining and rocking the case, persons do at times solve the puzzle, by entering and seating the ball or marble successively in all the notches but it is seldom attained unless long practice has been had, and even then such experienced players fail.

In Fig. 3, the puzzle is simply changed in the shape of its case, and this is done more for symmetry and beauty than anything else. In Figs. 4 and 5, the game is the same as in the other constructions, but its case is circular and its scalloped flange forms a complete circle. In Fig. 6 the scallops are formed on the outer circular flange instead of on the inner one, as shown in Figs. 4 and 5. To play the game shown in Figs. 4, 5 and 6, the case is kept nearly horizontal, being only inclined and rocked to a sufficient extent to cause the marble or ball to roll from one notch to another, which result is only secured by the most careful movement and steadiness of nerve, and mental calculation as to how great and what character the movement must be, the same as with the construction of game shown in Figs. 1, 2 and 3.

The puzzles are so cheaply manufactured that they can be purchased in large quantities at a small outlay by merchants, and affixing their business card on the backs of the same, given away as prize tokens to customers.

What I claim as my invention is:—

1. A game puzzle adapted to be held in the hand and to be operated by giving it a slight inclination or obliquity from a horizontal plane, comprising in its construction, end portions, a bottom portion, a back portion, a top portion of greater width than the said

bottom portion, a shallow lower front flange having scallops or notches in its lower edge, an upper front flange of greater depth than the lower front flange and on a plane forward of the lower flange, and a ball or marble, arranged between the upper flange and the back portion, this construction providing a channel way of little greater diameter than the ball or marble above the notched or scalloped flange, and an inspection passage between the two flanges, and compelling the exposed ball or marble to travel on top of the notched flange, and allowing it to become seated in the notches according to the skill with which the user manipulates the puzzle, substantially as described.

2. A game puzzle adapted to be held in the hand and to be operated by giving it a slight inclination or obliquity from a horizontal plane, comprising in its construction, end portions, a bottom portion, a back portion, a top portion of greater width than the said bottom portion, a shallow lower front flange having scallops or notches in its lower edge, an upper front flange of greater depth than the lower front flange and on a plane forward of the lower flange, a ball or marble, arranged between the upper flange and the back portion, and game indices; this construction providing a channel way of little greater diameter than the ball or marble above the notched or scalloped flange, an inspection passage between the two flanges, with the game indices opposite the scallops or notches, substantially as described.

3. An oblong hollow game puzzle, formed with an overhanging top having a front pendent vertical flange, and a relatively narrower bottom portion having a relatively shallower front flange which is notched or scalloped on its upper edge, the two flanges having an oblong inspection space between them; and a marble or ball arranged within the oblong channel way of the puzzle and resting upon the notched flange, whereby the ball can, only with great skill, be seated in the notches successively, by tilting the puzzle from a horizontal to a slightly inclined or oblique position, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

CHARLES F. SPENCER.

Witnesses:

C. HINES,

E. T. FENWICK.

It is hereby certified that Letters Patent No. 489,394 granted January 3, 1893, upon the application of Charles F. Spencer, of Rochester, New York, for an improvement in "Game Puzzles," was erroneously issued to Charles F. Spencer and James C. M. Bosdyk, as joint owners of said invention; whereas the patent should have been granted to said James C. M. Bosdyk, he being assignee of the entire interest as shown by the assignments of record in the Patent Office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 24th day of January, A. D. 1893.

[SEAL.]

Countersigned:

W. E. SIMONDS,
Commissioner of Patents.

CYRUS BUSSEY,
Assistant Secretary of the Interior.