No. 752,377. PATENTED FEB. 16, 1904.

O. CRITTENDEN.

PUZZLE.

APPLICATION FILED JUNE 10, 1903.

NO MODEL.

Fig. 1.

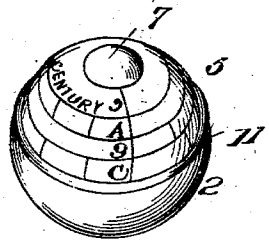
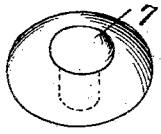
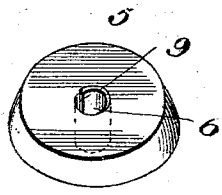
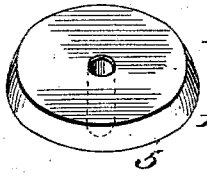
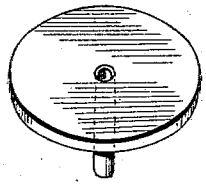


Fig. 2.









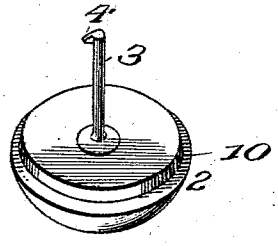


Fig. 3.

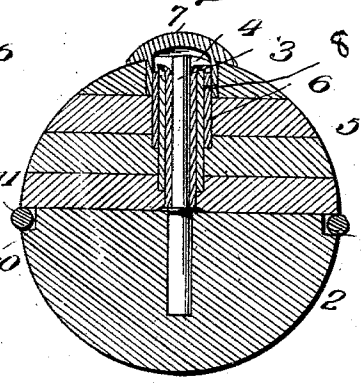
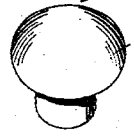
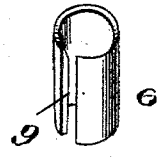
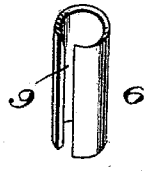
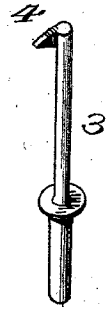


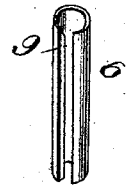
Fig. 4.











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No. 752,377. Patented February 16, 1904.

UNITED STATES PATENT OFFICE.

ORLANDO CRITTENDEN, OF AKRON, OHIO.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 752,377, dated February 16, 1904.

Application filed June 10, 1903. Serial No. 160,917. (No model.)

To all whom it may concern:

Be it known that I, ORLANDO CRITTENDEN, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Puzzles, of which the following is a specification.

This invention aims to provide a puzzle of somewhat simple construction yet of quite intricate character, so as to be difficult to solve, and at the same time of a nature so as to incite interest in the accomplishment of the desired result.

The puzzle is preferably of the form of a ball made in two sections of approximately hemispherical form, said sections being locked together in a peculiar manner, and when locked together being adapted to hold between them a ring or like part. It is the purpose of the puzzle to separate the sections and remove the ring.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the complete device. Fig. 2 is a combined view showing the sections in perspective. Fig. 3 is a vertical sectional view through the puzzle. Fig. 4 is a perspective view of the concentric sleeves and the cap securing the same to the solid section.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

As premised hereinbefore, the puzzle is preferably of ball form. However, this is not especially essential, it being contemplated that the sections when assembled may be in the form of a cylinder or of any other analogous shape. One of the sections, 2, is solid and projected from the flat face of the said section is a lock-shaft 3. This shaft is secured to the solid section in any substantial way and at the outer end of the shaft is disposed a projection or spur 4. To facilitate description, the sections will be designated as the "ring-section" 1 and the "solid section" 2. The ring-section is composed of a plurality of rings 5, disposed adjacent each other, said rings being respectively secured to a plurality of concentric sleeves 6. These sleeves are secured together by an ordinary swivel-joint, the inner sleeves being flared at their inner ends to prevent displacement from the outer sleeve. The sleeves 6 have their inner ends received by a cap 7, which is rigidly secured to the outermost of the rings 5 and also rigidly secured by means of a rivet or key 8 to the outermost of the sleeves 6. The sleeves 6 are provided on one side with longitudinal slots 9, which slots are adapted to register or be disposed in alinement, so as to permit the passage of the projection 4 upon the lock-shaft either in separating the parts or in joining them. In order to secure the alinement of the slots 9, indicating data are disposed upon the rings 5. These indicating data constitute what may be designated as "combination" means for so disposing the rings that the several slots in the sleeves will register and permit the passage of the projection 4. The special character of the indicating data upon the rings is not essential to the invention, since any peculiar characters which would tend both to make the solution of the puzzle difficult and at the same time interesting and amusing may be selected. The signs of the zodiac or any other special indicative means which might assist in "throwing the operator of the puzzle off the track" may be used, this depending upon the desire of the manufacturer in the introduction of the article. In the puzzle as illustrated in the drawings the several rings are provided with lines separating the same into a number of spaces, each of which spaces contains a character. The characters are the means for arranging the rings so as to aline the slots 9, as will be clearly understood, since by registering the proper characters the said slots 9 upon the sleeves 6 will also register, and thus permit separation of the sections.

The solid section 2 is provided with an annular cut-away portion 10, and a ring 11, suitably finished in accordance with the general finish of the article, may be placed between the sections and locked therebetween, when the rings 5 are so manipulated as to throw the slots 9 out of alinement.

The parts being in the position shown in Fig. 1 and locked together the operator of the puzzle must so manipulate the rings which are adapted for a rotatory movement that certain characters thereupon will register, and thus cause registry of the slots 9 of the concentric sleeves 6. This having been accomplished, after considerable difficulty, of course, the spur or projection 4 will then be adapted to pass through the solid portions and permit separation of the sections, when the ring may readily be removed and the solution of the puzzle is thus had. To illustrate the solution of the puzzle, the characters which should be in alinement upon the rings 5, as shown in the drawings, must be a comma upon the outermost ring, "A," "9," and "C" upon the adjacent rings. The characters "A," "9," and "C" are the equivalent in the puzzle to "1900," the "A" representing the "1," because the same is the initial letter of the alphabet, "9" the second numeral of the whole, and "C" the Roman character for "100," the above together constituting the required "1900."

The puzzle may be made of wood, hard rubber, or any other desirable material, the concentric sleeves being preferably of metal to permit the requisite ease in the rotatory movement of the rings, and the intermediate ring 11 of metal.

Having thus described the invention, what is claimed as new is—

1. A puzzle consisting of sections, one of said sections being solid and the other comprising a plurality of adjacent rings, a cap secured to the outermost ring, concentric sleeves secured to respective rings and provided with longitudinal slots therein, the innermost portions of the said sleeves being received by the cap aforesaid, and means for securing the said sleeves to the cap, a lock-shaft projected from the solid section and provided with a spur thereon, said spur being adapted to engage the concentric sleeves aforesaid to secure the sections together, indicating means provided upon the adjacent rings of the sections aforesaid whereby the longitudinal slots may be alined to permit passage of the lock-shaft and separation of the sections, an annular recess disposed upon the solid section, and a ring adapted to be seated in the recess and to be held in such position when the sections are locked together.

2. A puzzle consisting of sections, one of said sections being solid and the other comprising a plurality of adjacent rings, concentric sleeves secured to respective rings and provided with slots therein, a lock-shaft extended from the solid section and provided with a projection or spur thereon, said spur being adapted to engage with the concentric sleeves aforesaid to secure the sections together, indicating data provided upon the adjacent rings of the sections aforesaid whereby the slotted portions of the concentric sleeves carried thereby may be arranged in alinement so as to permit passage of the projection or spur of the lock-shaft and separation of the sections, and a ring secured intermediate the sections and adapted to be removed by separation thereof.

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

ORLANDO CRITTENDEN. [L. S.]

Witnesses:
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W. J. WATTERS.