April 29, 1969 R. D. LEWIS 3,441,282

KEY LOOP GAME DEVICE

Filed Sept. 14, 1965

Fig. 1

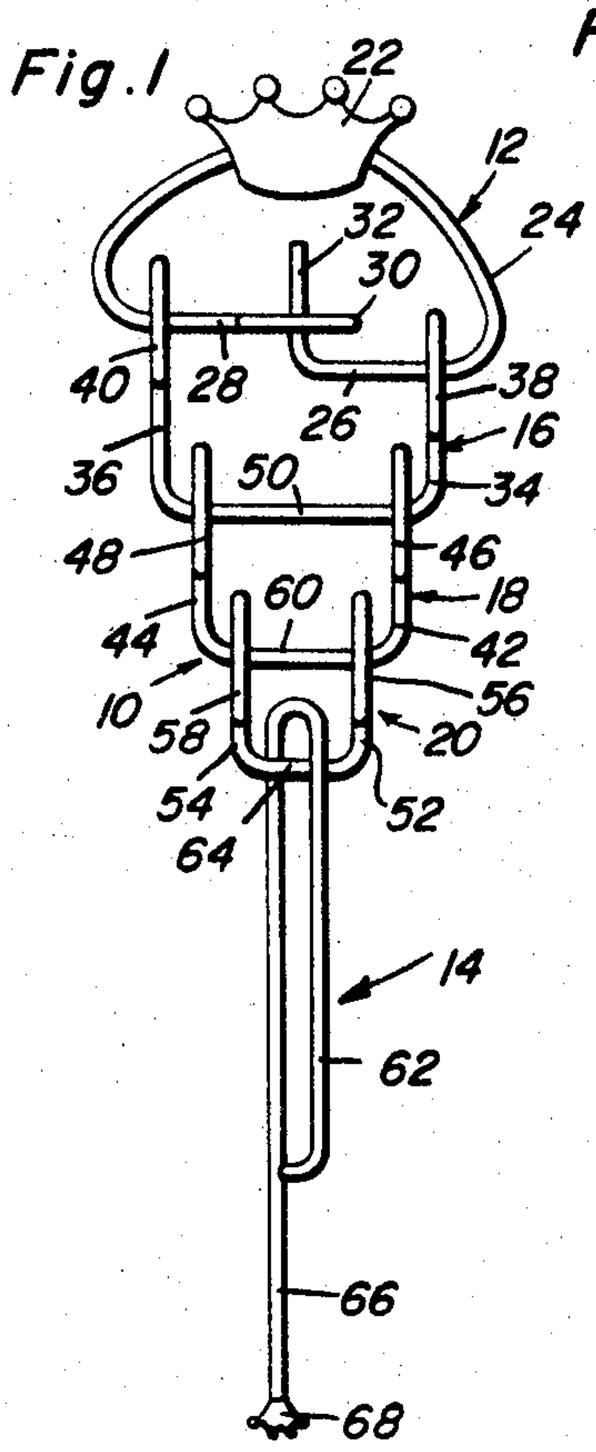


Fig. 2

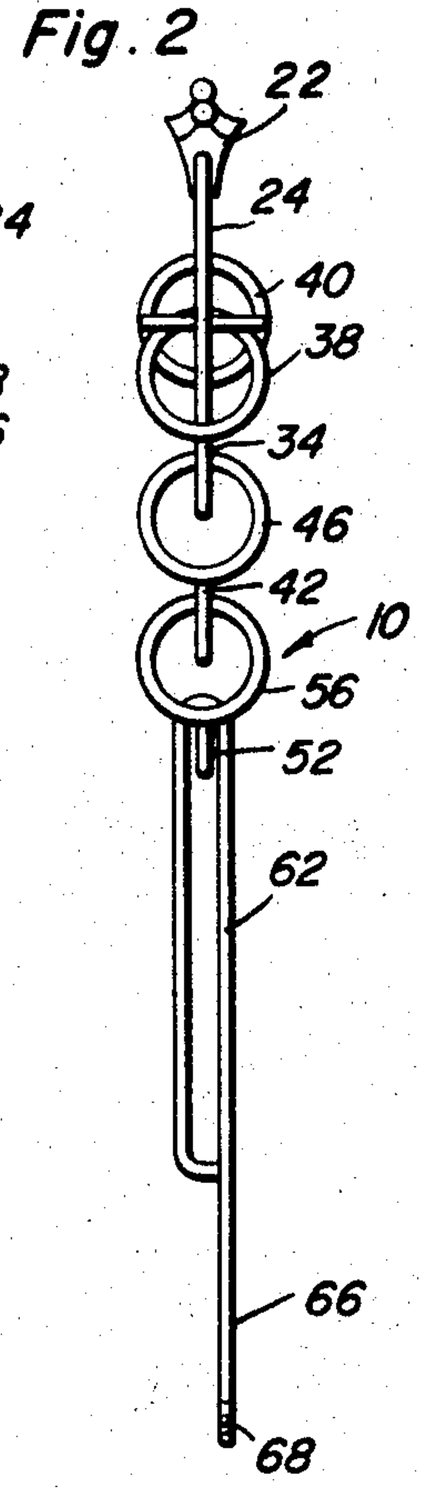


Fig. 3

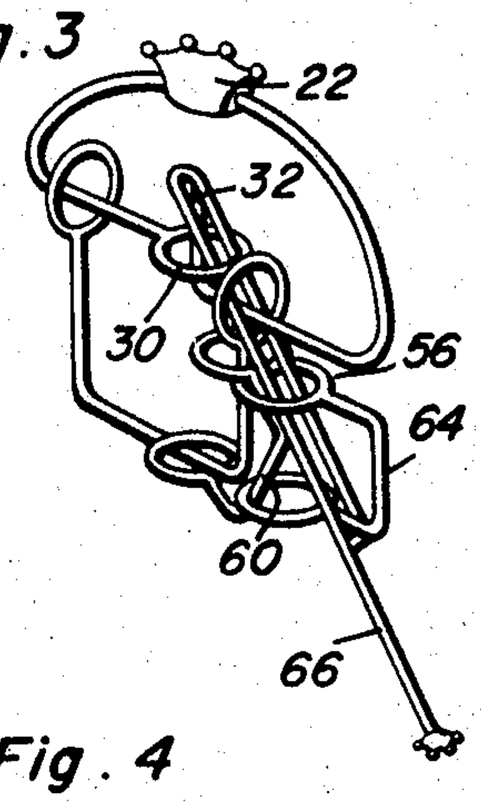


Fig. 4

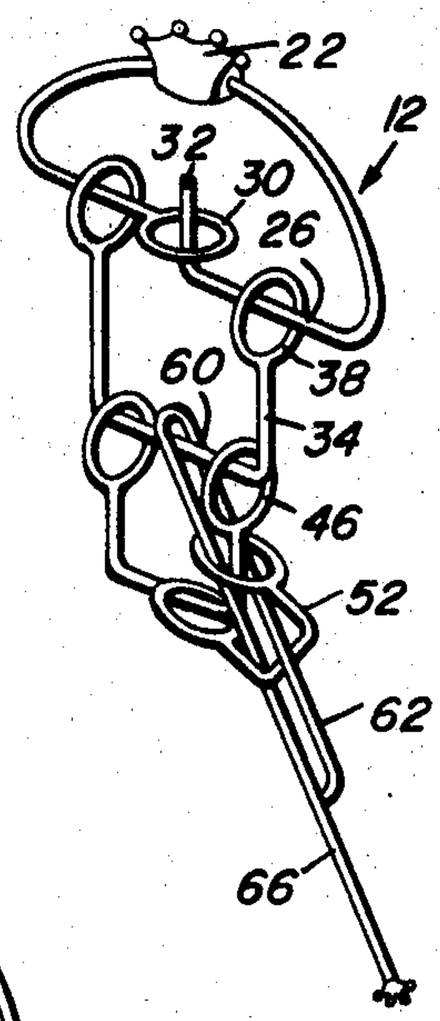


Fig. 6

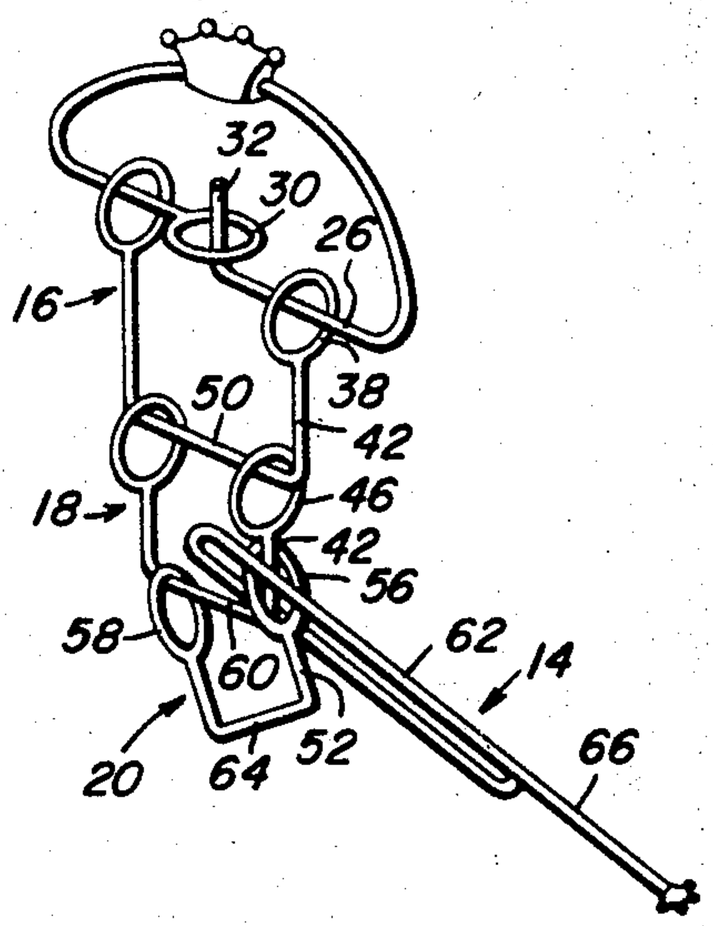
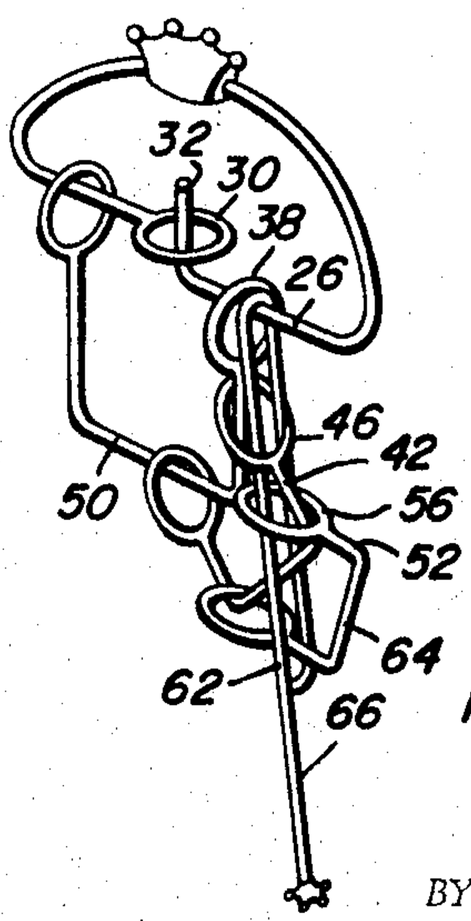


Fig. 5



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United States Patent Office

3,441,282
Patented Apr. 29, 1969

3,441,282

KEY LOOP GAME DEVICE

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Filed Sept. 14, 1965, Ser. No. 487,286
Int. Cl. A63f 9/08
U.S. Cl. 273—158 3 Claims

ABSTRACT OF THE DISCLOSURE

A puzzle of first, second and third U-shaped members and an arcuate crown loop having inwardly extending arms at the free ends thereof. The end of the arms on the first, second and third U-shaped members have rings to connect the first member to the second member, the second member to the third member, and the third member to the crown loop. An elongate loop shaped key loop is provided for movement along the components of the puzzle and removable therefrom. The inwardly extending arms on the loop terminate respectively in rings and upstanding members disposed between the rings on the third member.

This invention relates to improvements in game devices and more particularly to a novel puzzle type game device of rather intricate configuration which will supply amusement and stimulation to inquiring minds of all ages.

Briefly, this invention consists of a plurality of substantially U-shaped members which are interconnected by loop ends, a crown arm member connected to one side of the interconnected members and a key loop member connected to the other side of the interconnected members. The principal object of the game device is to remove the key loop member from the crown loop member and thereby remove it from the remainder of the puzzle by threading the key loop member upwardly through the interconnected members.

Another object of the present invention is to provide a novel and intricate game device which will allow hours of amusement while at the same time is relatively inexpensive to manufacture.

A still further object of the present invention is to provide a key loop game device of the character described which may be readily fabricated from inexpensive material and which is sturdy enough to withstand the play of children.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a front elevational view of the key loop game device comprising the present invention;

FIGURE 2 is a side elevational view corresponding to the view illustrated in FIG. 1; and

FIGURES 3–6 are perspective views illustrating the various steps or stages required in the operation of the game device.

Referring now to the drawings in greater detail, reference numeral **10** generally denotes the key loop game device comprising the present invention. As will be observed in FIGS. 1 and 2, the key loop game device includes an upper crown loop member **12**, a lower key loop member **14** and three interconnecting substantially U-shaped members **16, 18** and **20**. The crown loop member **12** includes a crown **22** fastened to the upper portion thereof, as for example by being welded or brazed or otherwise attached thereto in conventional manner, the crown **22** comprising a handle for allowing the device to be held while the removal of key loop **14** is effected. The

crown loop member **12** includes an upper body portion **24** which is generally arcuately curved and includes lower inwardly oriented arms **26** and **28**. The arm **26** includes a lock ring **30** on the end thereof, the lock ring **30** comprising a generally circular horizontally disposed ring which is integrally attached to the arm **26**. The other arm **28** of crown loop **12** includes an upturned post member **32** which extends vertically upwardly through the center of lock ring **30**.

The interconnecting members **16, 18** and **20** are generally U-shaped, the uppermost member **16** including upstanding arms **34** and **36** of unequal length, the arms having integrally mounted on the upper ends thereof the rings **38** and **40**. The rings **38** and **40** are vertically oriented and are mounted on the arms **26** and **28** of crown loop member **12** respectively.

The interconnecting member **18** is also U-shaped and includes upstanding arms **42** and **44** of equal length, having rings **46** and **48** on the upper ends thereof, the rings **46** and **48** being mounted on the bottom portion or gate **50** of member **16**.

The interconnecting member **20** is substantially identical to member **18** except that it is reduced in size and includes upstanding arms **52** and **54** having rings **56** and **58** on the upper ends thereof, the rings **56** and **58** being mounted on the bottom portion or gate **60** of member **18**.

The key loop member **14** includes an oblong portion **62** which is normally positioned on the bottom portion or gate **64** of member **20** and a handle portion **66** having a crown **68** on the end thereof for decoration or ornamentation. The handle portion **66** is normally grasped in order to thread the key loop through the interconnecting members to perform the operation of the device.

Of course, the purpose of the game device or puzzle **10** is to remove the key loop member from the puzzle. This is accomplished by a plurality of sequential steps by which the key loop member is first raised to gate **60**, then raised to gate **50**, and finally raised to the right crown arm **26**. At this time, it will be relatively simple to remove the key loop from the puzzle. FIGS. 3–6 are included to show the manner of raising the key loop from gate **64** to gate **60**, it being appreciated that the manner of raising the key loop **14** to the subsequent gate **50** and right crown arm **26** will involve substantially identical operations thereof.

The operation of the puzzle is as follows: the crown portion **22** of crown loop **12** is grasped in the left hand and the handle **66** of key loop **14** is grasped in the right hand. Referring to FIG. 3, the oblong portion **62** of key loop **14** is first moved through ring **56** from the inside and then through ring **38** from the outside. The key loop is then moved through crown lock ring **30** from the bottom and moved downwardly over post **32** and withdrawn from ring **38**. At this time the key loop will be positioned on right crown arm **26**.

The key loop **14** is then moved over ring **38**, back up through crown ring **30**, over the post **32** and withdrawn, at which time it will be positioned on gate **60** to the right of ring **46**. The key loop **14** is then moved over ring **46** at which time it will be in the position illustrated in FIG. 4.

Referring now to FIG. 5, the oblong portion **62** of key loop **14** is now moved through ring **46** from the inside thereof and thence upwardly through crown ring **30** and over post **32**, then over ring **38** at which time it will be positioned on the right crown arm **26** to the right of ring **38** as illustrated in FIG. 5.

Referring again to FIG. 5 and further to FIG. 6, the oblong portion **62** of key loop **14** is now moved through ring **38** and crown ring **30** and upwardly over post **32** and withdrawn downwardly through ring **30** and ring **46** at which time the oblong portion **62** will be positioned on

gate **60** between rings **56** and **58**. As illustrated in FIG. 6, the oblong portion **62** of key loop **14** is now moved over ring **56**, at which time it will be entirely free of ring **56** of interconnecting member **20** and will be positioned on the gate **60** of interconnecting member **18**. Thus, one stage of operation of the game device has been completed, the key loop **14** being moved from gate **64** of interconnecting member **20** to gate **60** of interconnecting member **18**.

As stated above, the method of moving the key loop **14** upwardly onto the crown loop **12** and then off of crown loop **12** whereby it will be entirely removed from the puzzle is substantially similar to the series of steps described above. However, the steps necessary to achieve this position of key loop **14** will be described briefly below.

The key loop **14** is passed through ring **46** from the inside, then through ring **38** from the outside, through the crown ring **30** and over post **32** and finally withdrawn through ring **38** at which time the key loop will be positioned on the right crown arm **26**. The oblong portion **62** of key loop **14** is now passed over ring **38** through crown ring **30** and over post **32**, through ring **46** and finally over ring **46**. At this time the key loop **14** will be positioned on the right side of ring **46** and on gate **50**.

The key loop **14** is now passed through crown ring **30** and over post **32**, over ring **38**, at which time it will be positioned on the right crown arm **26** to the right of ring **38**. To remove the key loop **14** entirely from the puzzle **10**, the oblong portion is passed through ring **38**, through crown ring **30**, over post **32** and then withdrawn through rings **30** and **38** at which time it will be entirely free of the puzzle.

Of course, the key loop **14** may be replaced on gate **64** of interconnecting member **20** by reversing the above procedural steps.

Accordingly, in view of the above description, it will be observed that the key loop game device **10** comprises an interesting and challenging puzzle which will involve both ingenuity and manual dexterity to operate. The puzzle can be made from any desired material such as rigid metallic material or plastics so long as it is substantially rigid, and further may be made on any scale. The game device is extremely fascinating to those having used it, and may even be considered to be educational in that it increases the powers of concentration and stimulates the mind of the user.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A game device comprising, first, second and third generally U-shaped members including gate portions and arm portions, each said member having rings formed on the upper ends of the arm portions thereof, the rings of said first member positioned on the gate portion of the second member, and the rings of said second member positioned on the gate portion of the third member whereby said first and second members and said second and third members are joined, a one-piece crown loop member, the rings of said third member positioned on said crown loop member, and a key loop member, the key loop member normally positioned on the gate portion of said first member, the key loop member being selectively and sequentially movable along said first, second, third and crown loop members thereby enabling said key loop member to be removed from said game device, said crown loop member including an arcuately curved body portion, plate-like handle means on said body portion for holding the device during manipulation thereof, and a pair of arms extending inwardly from the ends of said body portion through the rings on said third member, said rings on the third member being vertically offset, said arms being vertically offset to engage said rings on the third member, a first of said arms having a horizontal ring on an end thereof, the other of said arms having an upwardly extending post portion on an end thereof, said post portion extending upwardly through the center of said ring on said first arm thereby allowing said key loop member to be removed from said game device, said key loop member including an elongated, oblong, loop-like body portion for hanging said key loop member on said gate portions of said first, second and third members, and a handle in the form of a rod extending axially from one side of the loop-like body portion for providing means to hold said key loop member while said key loop member is manipulated through said device.

2. The combination of claim **1** wherein said key loop member is selectively and sequentially movable from the gate portion of said first member to the gate portions of said second and third members and to the crown loop member whereby said key loop member may be then removed from said game device.

3. The combination of claim **2** wherein said first, second and third members include two arm portions, said gate portions of each said first, second and third members joining the arms of each said first, second and third members thereby forming the bottom of the U.

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