

H. F. TROUT.  
PUZZLE.  
APPLICATION FILED FEB. 13, 1908.

911,461.

Patented Feb. 2, 1909.

FIG. 1

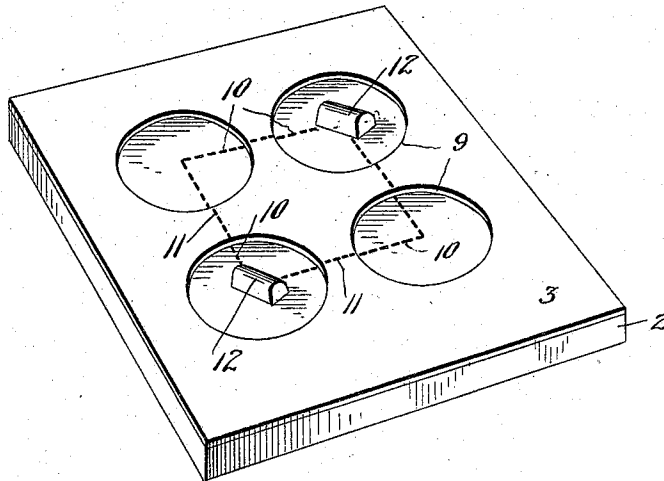


FIG. 2

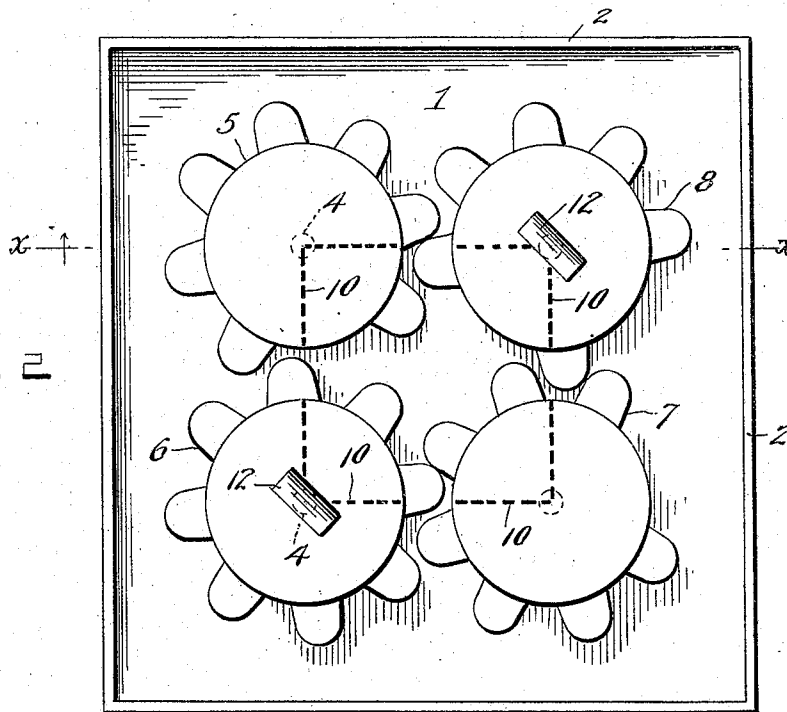
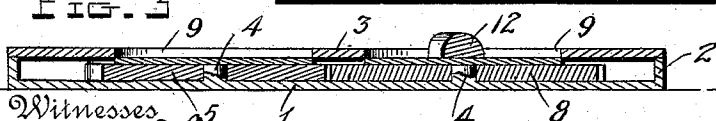


FIG. 3



Witnesses

Chas. R. Griesbauer.  
C. H. Griesbauer.

By

H. F. Trout

Inventor

Attorneys

# UNITED STATES PATENT OFFICE.

HENRY F. TROUT, OF ELIZABETH, NEW JERSEY.

## PUZZLE.

No. 911,461.

Specification of Letters Patent.

Patented Feb. 2, 1909.

Application filed February 13, 1908. Serial No. 415,742.

*To all whom it may concern:*

Be it known that I, HENRY F. TROUT, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Puzzles; and I do 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 puzzles, and especially to that type of puzzle wherein the object is to complete a design normally in fragments or separated parts.

The object of the invention is to provide a device of this character which will be simple in construction, cheap to manufacture and which will offer considerable pleasure and study in its mastery.

Another object is to provide a puzzle which may have one portion of its design complete in itself so that the remaining fragmentary portions go to form with the complete design another complete design, thus more or less confusing the user, and making accomplishment of the puzzle's object more difficult.

Further objects of the invention will appear as the specific description which follows is read in connection with the accompanying drawings which form a part of this application, and in which,

Figure 1 is a perspective view of the device, Fig. 2 is a top plan view thereof with the cover removed, and Fig. 3 is a transverse section on line  $x-x$  of Fig. 2 with the cover in place.

Referring more especially to the drawings, 1 represents the bottom of a shallow box provided with sides 2 and a cover 3, of any suitable material which is opaque. This cover may be detachably secured to the sides 2, or it may be permanently secured thereto, as desired, it being immaterial for the purpose of the invention.

Projecting upwardly from the bottom 1 adjacent the four corners thereof are stub shafts 4, upon which are journaled gear wheels 5, 6, 7 and 8. Gear wheels 5, 7 and 8 have teeth missing from their periphery, the first two having one only, and the last one, 8 having two teeth missing, with a single tooth intervening between the spaces. All of the teeth around the gear wheel 6 are equally spaced and no teeth are missing from its body.

Secured upon the top of the gears are disks of any suitable thin material so as not to depreciably increase its depth. These disks are exposed through openings 9, in the cover and contain one part 10, of any suitable complementary fragmentary parts of designs which form with the design 11, carried by the outside of the cover, a complete design.

To operate the gear wheels and their respective disks, I provide buttons 12, upon one or more of the disks so that they may be revolved to bring the portions of the design carried by the respective disks in alignment with the portion 11 of the design. The reason for omitting certain teeth upon the gears is to permit these gears to rotate independently of the remainder or the adjacent gears to rotate independently. It will be noticed, however, that if the gear 5 is rotating independently of the gear 8 it will not be rotated independently of gear 6, or if gear 7 is rotating independently of gear 6, it will not be rotated independently of gear 8. This is done in order to confuse the operator and prevent if possible the forming of a complete design upon the article, it being necessary for the operator to change from one of the buttons to the other a number of times before the fragmentary parts of designs upon the disks are brought into alignment with the complete design upon the top of the box.

I have shown that portion of the design 10, which co-acts with the design 11 to form a completed design by marginal dash lines, it being understood that when these marginal lines register with the marginal lines of the design 11, and a perfect square is formed, the complete design is formed. By making each quarter of the disks to hold a different fragmentary portion of a design several forms of designs may be made in connection with the design 11. The form which is hardest to obtain may be considered the prize design, and the object of the puzzle.

Having thus described my invention what I claim and desire to secure by Letters-Patent is:—

1. In a puzzle, a box, a plurality of mutilated gears mounted therein and intermeshing with each other, a series of disks carried by said gears and each having a fragmentary part of a complete design, and means to rotate the gears and bring the fragmentary parts in alignment to complete the design.

2. In a puzzle, a box, a plurality of shafts

mounted in the box, a series of gears  
mounted on the shafts adapted to rotate and  
intermesh with each other, a series of disks  
carried by the gears and each having a frag-  
mentary part of a complete design upon their  
5 surface, a top to hold said gears in position  
within the box, said top having apertures to  
expose the design on each disk, and having  
complemental fragmentary parts of the  
10 design which co-act with the parts upon the  
disks, and means to rotate said disks to  
bring the various fragmentary parts of the  
design in registry to form a complete de-  
sign.

15 3. In a puzzle, a box, a series of inter-  
meshing mutilated gears rotatably mounted  
therein, a series of disks carried by said gears

and each having a fragmentary part of a  
complete design, a top for the box having  
apertures through which the said parts of 20  
designs are exposed and having complemen-  
tal parts of the design which co-act with the  
parts upon the disks, and means to manipu-  
late some of the gears, and thereby the  
others, to bring the parts of the design 25  
thereon in alinement with the design on the  
cover.

In testimony whereof I have hereunto set  
my hand in presence of two subscribing wit-  
nesses.

HENRY F. TROUT.

Witnesses:

CHARLES COOPER,  
FRANK H. COOLEY.