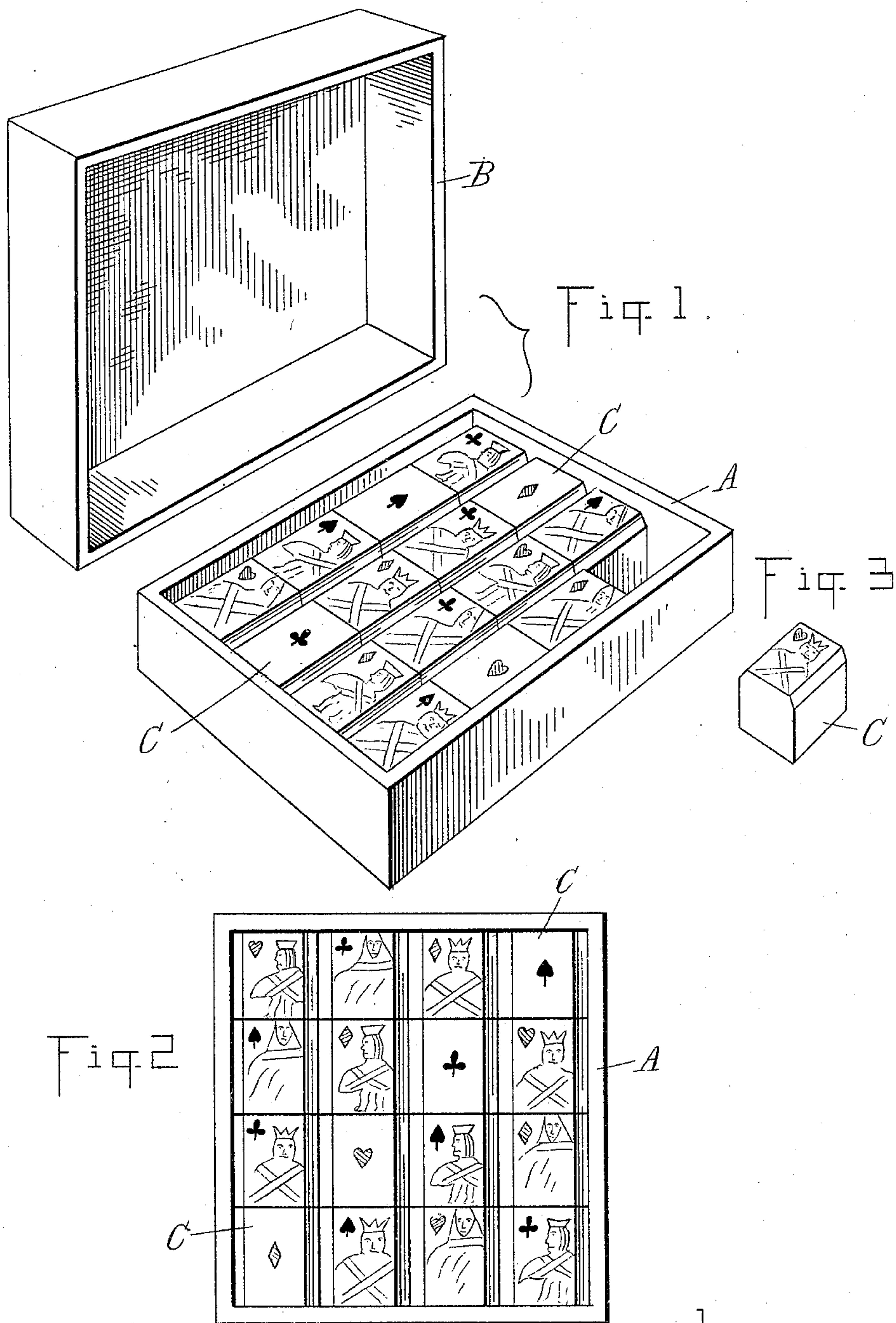


(No Model.)

J. W. BROWN.
PUZZLE.

No. 433,444.

Patented Aug. 5, 1890.



Witnesses:

P. M. Hulbert

J. Paul Mayer

Inventor:

John W. Brown

By *Thos. S. Sprague & Son*
Att'y.

UNITED STATES PATENT OFFICE.

JOHN W. BROWN, OF DETROIT, MICHIGAN.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 433,444, dated August 5, 1890.

Application filed April 22, 1889. Serial No. 308,185. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BROWN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Puzzles, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful
 10 improvements in puzzles; and the invention
 consists in the peculiar arrangement and con-
 struction in a suitable receptacle of blocks
 containing the representations of playing-
 cards, designed to be moved in any other pe-
 15 culiar arrangement of the cards, all as more
 fully hereinafter described.

In the drawings which accompany this specification, Figure 1 represents my puzzle as arranged ready for solution. Fig. 2 is a
20 plan view of the same, showing the puzzle solved; and Fig. 3 is a perspective view of one of the blocks removed.

A is a suitable box having the cover B. In this box I place the blocks C. Upon each of
25 these blocks is printed, pasted, or otherwise secured a representation of a playing-card, each block having a representation of a different card.

In the arrangement of the sixteen cards, as
30 shown in Fig. 1, there are four of each kind
of cards—that is, four cards of hearts, four of
spades, four of clubs, and four of diamonds,
each suit or kind having one of each of the
following denominations: ace, king, queen,
35 and jack or knave.

I arrange the blocks in the box in the following manner, as shown in Fig. 1: in the first or top row, commencing at the left hand and going toward the right hand, the jack of clubs, ace of diamonds, queen of spades, and king of hearts; the second line, the ace of spades, the king of clubs, jack of hearts, and queen of diamonds; the third line, jack of spades, king of diamonds, queen of clubs, and ace of hearts; the fourth line, queen of hearts, ace of clubs, jack of diamonds, and king of spades. It will be seen that in this arrangement there is one of each suit in each line horizontally across the box. It will also be observed that in the vertical direction the first and last columns have three de-

nominations represented, two cards being
 alike and two dissimilar, while in the second
 column there are but two denominations rep-
 resented, there being two of each kind. The
 blocks being thus arranged, the king of hearts
 in the upper right-hand corner is removed,
 leaving a space in which to move one block
 at a time, either vertically or horizontally.
 The blocks are to be moved without jumping
 one block over the other until the cards are
 so arranged that the four aces and the four
 jacks or knaves are diagonally placed in the
 box, and so that no two of the same suit will
 be in either a vertical or horizontal line. The
 puzzle, as solved, is shown in Fig. 2. Forty-
 one moves are required to accomplish this re-
 sult. I select this arbitrary arrangement of
 the cards to commence with, for the reason that
 it requires the largest number of moves of
 any combination which I have been able to
 discover and yet be solvable.

In order to solve the puzzle, the blocks must be moved in the following order: queen of diamonds to king of hearts, ace of hearts to queen of diamonds, king of spades to ace of hearts, jack of diamonds to king of spades, queen of clubs to jack of diamonds, jack of hearts to queen of clubs, ace of hearts to jack of hearts, king of spades to ace of hearts, jack of hearts to king of spades, ace of hearts to jack of hearts, queen of spades to ace of hearts, queen of diamonds to queen of spades, king of spades to queen of diamonds, jack of hearts to king of spades, ace of hearts to jack of hearts, queen of spades to ace of hearts, jack of hearts to queen of spades, ace of hearts to jack of hearts, queen of spades to ace of hearts, jack of hearts to queen of spades, king of clubs to jack of hearts, ace of diamonds to king of clubs, queen of diamonds to ace of diamonds, king of clubs to queen of diamonds, ace of hearts to queen of spades, king of clubs to ace of hearts, ace of diamonds to king of clubs, ace of spades to ace of diamonds, jack of spades to ace of spades, queen of hearts to jack of spades, ace of clubs to queen of hearts, king of diamonds to ace of clubs, ace of spades to king of diamonds, jack of spades to ace of spades, queen of hearts to jack of spades, ace of clubs to queen of hearts, king of diamonds to ace of clubs, ace of spades to king of dia-

monds, ace of clubs to ace of spades, king of diamonds to ace of clubs, ace of spades to king of diamonds, and then replace the king of hearts in the only vacant space in the box.

5. I am aware that it is not new to form a puzzle by placing in a box a series of movable blocks having letters or numbers on their faces.

What I claim as my invention is—

10. The puzzle herein described, consisting of a box, sixteen blocks with the representation of the ordinary playing-cards thereon in the

box, arranged in the sets of four blocks, and each set representing four like cards of the same value and differing in value from the 15 other sets, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 6th day of April, 1889.

JOHN W. BROWN.

Witnesses:

JAMES WHITEMORE,
J. PAUL MAYER.