Fifteen Puzzle

a.k.a. Game of Fifteen, Sliding Numbers, Gem Puzzle, Boss Puzzle, Le Taquin, ...
Old idea dating back at least to circa 1880, this version copyright ThinkFun 2000.
(metal with plastic case, 2.5 inches; keychain 1.75 inches)

Packaged with 1 through 15 arranged by row (lower right empty). After sliding pieces to mix it up, one must return to the starting position. The back of the box says that this one reproduces a 1933 design called the IMP:

To solve, the top two rows are easy, then cycle the 7 pieces on the last two rows, taking "short cuts" as needed to rearrange the order of pieces in the cycle.

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Other Fifteen Problems

Here are some other problems from the back of the ThinkFun Mini Fifteen keychain. The first, to make a magic square with the empty square counting as 0, is the Spanish Dungeon of H.E. Dudeney 1917 (see Baxter's Page). The last, the reversing problem, is noted as impossible.
The Fifteen-Fourteen Problem

A parity argument implies that half the puzzle configurations cannot be reached from any given configuration. For example, the starting position of the Fifteen-Fourteen puzzle shown on the left below has 14 and 15 exchanged, making the standard solution impossible (although as shown on the right below, solution is possible with the empty square in the upper right).

![Fifteen-Fourteen puzzle](image)

_Fifteen-Fourteen, used by J. A. Storer as a child circa 1965._
(plastic, 2.5 inches)

Here is a proof that the Fifteen-Fourteen problem cannot be solved, based on the presentation on the Wikipedia Page:

Define the count of a position to be the number of pairs of pieces that are out of order plus the number of the row that contains the empty square (rows are numbered 1 to 4). The parity of a position is even if its count is an even number and odd otherwise. Moving a piece one left or right does not change the position count since this does not change the ordering of pieces or the row number of the empty square. Moving a piece vertically always changes the position count by 4 because it changes the order with respect to three other pieces and changes the row number of the empty square by 1. Hence, since both 0 and 4 are even numbers, each move preserves position parity, and all positions reachable from a given starting position must have the same parity. Thus, the 1-15 position cannot be reached from the 1-13-15-14 position because these positions have different parity.

In general, if you can get to where you have the position you want to reach except that in one place two adjacent squares are exchanged, then that position cannot be reached. For example, if someone gives you a what looks like a fifteen puzzle in a mixed up position, you can try to make the standard 1-15 position and either be successful or arrive at the 1-13-15-14 position (and be certain that this is a Fifteen-Fourteen puzzle for which a 1-15 solution is not possible). As another example, the reversing problem is not solvable, because it is possible to get to an almost reversed position except that the 1 and 2 are exchanged, as depicted below:

![Fifteen-Fourteen puzzle](image)

_Copyright J. A. Storer_
"The Cross Number", circa early 1900's?
(wood box and 15 wood pieces, 4+3/8" x 4+3/8" x 1/2";
directions on top specify a solvable version of the Fifteen-Fourteen problem)

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The Fifteen Magic Square Problem (a.k.a. 34 Problem)

Old versions of the fifteen puzzle typically had pieces that could be removed, and sometimes a piece 16 was included that was not used to play the normal fifteen puzzle, or left in for making a magic square of the numbers 1 to 16, defined as an arrangement so that the four rows, the four columns, and the two diagonals all sum to 34. One example is the Boss puzzle shown on the next page, which refers to this as the "Thirty Four" problem. Here is another:

"Le Taquin", manufactured by JJE Paris, circa 1880's.
(wood box and 16 wood pieces, 3.9 by 3.9 by 3/4 inches;
shown on page 61 of the Fifteen book,
the French directions on the inside top cover describe both 15 and magic square)

The idea of magic squares dates to over a thousand years ago; here are two old designs shown on the Wikipedia page:

\[
\begin{array}{cccc}
7 & 12 & 1 & 14 \\
2 & 13 & 8 & 11 \\
16 & 3 & 10 & 5 \\
9 & 6 & 15 & 4 \\
\end{array}
\]

\[
\begin{array}{cccc}
4 & 14 & 15 & 1 \\
9 & 7 & 6 & 12 \\
5 & 11 & 10 & 8 \\
16 & 2 & 3 & 13 \\
\end{array}
\]

The Winning Ways book (page 778-783) discusses the design of 4x4 magic squares and notes that the 880 ways to do it for the numbers 1 to 16 (not counting reflections and rotations) was worked out in 1693 by Frenicle de Bessy; see also the Wolfram Mathworld page.

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Combined Puzzles

Many puzzles sold combined problems for fifteen and sixteen pieces; here are the front and back of directions that came with a "2 puzzles in 1" keychain puzzle:

Copyright J. A. Storer
The Boss 15 and 34 Puzzle

(cardboard box and 16 wood pieces, 3.5 by 3.5 by 5/8 inches;
15 diagram on underside of the box top, and 17 page booklet about the 34 puzzle;
similar to the puzzle shown on page 73 of the Fifteen book)
Mesrs. CREMER's Establishments are the
largest of their kind in Europe; their stock
includes the best of everything in the way of
Toys, Dolls, Games, and Knick-knacks, selected
with the utmost care; their large commands enable them to offer superior articles at a more
moderate cost than is usually the case. Visi-
tors who desire to expend a small amount
will find a wonderful collection of pretty gifts,
suitable for all ages, at 6d. and 1s. each.

Unlike the Establishments of France, Ger-
many, and other countries (which, although
admirable, confine their sale generally to native
production) MESRS. CREMER's stock embraces
the manufactures of every clime and is most
varied and original in its character. A visit is
respectfully requested.

THE
"ALBRECHT DÜRER"
GAME of the THIRTY-FOUR.

This wonderful combination of the number
Thirty-four is over four hundred years old,
hence its interest as a novelty in pastime. It
consists of 16 blocks numbered 1 to 16. These
are to be so arranged in the box that the
addition sum of 34 may be reckoned up in
eighteen different ways, namely, perpendicu-
larly, horizontally, cross-wise from corner to
corner; by the four numbers forming each group
of four blocks at the corners; by the four outside
corner numbers; and by the two outside num-
bers of the two centre lines at the top and
bottom, also the two centre numbers on each
side as shown in the subjoined diagram:

| 16 3 2 13 |
| 5 10 11 8 |
| 9 6 7 12 |
| 4 15 14 1 |

ALBRECHT DÜRER and Boss may be played
either in company of one or more, or as a
Solitaire game; in either case these games
will be found of no ordinary interest.

CREMER, Junior,
210, REGENT ST. AND 27, NEW BOND ST.
(Copyright.)

"BOSS."

They who, from the present explanation, can
learn how they may be able to move number
for number in order to find an exact sequence,
must feel deceived when we explain that only
half the possible combinations can succeed.

KEY to the Boss Puzzle:
Of the 15 blocks used in the game, 8 are
with little trouble placed in the prescribed
succession, and so are four of the remaining 7,
either in a straight line, thus, 9. 10. 11. 12,
or in two columns:
9. 10—11. 12,
with the last three, which offer six combinations, this can be accomplished only in three cases. The three re-
mainings are absolutely insolvable.

The six combinations of the last three
blocks are:

1. 2. 3. Exact Solution.

Lowest. Mean. Highest.

1. 3. 2. Insolvable.

Low. High. Middle.

2. 1. 3. Insolvable.

Middle. Low. High.

2. 3. 1. Solvable.

Middle. High. Low.

3. 1. 2. Solvable.

High. Low. Middle.

3. 2. 1. Insolvable.

High. Middle. Low.

These combinations repeat themselves al-
ways: if we begin with 1 and leave off with
10; or commence with 15 and end with 1, we
may first operate upon the side numbers, or
the middle lines. With every combination
which the 15 blocks allow, after entire per-
mutation, the move terminates in one of the
six combinations of the last three blocks; and
of these there remain for solution only the
three before mentioned, but not the other
three. With the absolute impossibility, through
the removal of the blocks of the last two rows,
to arrive at a solution, the game finishes. If
we try by shifting the blocks already firmly
set in the first two rows, we are launched in a
new game. The possibility of a systematic

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scheme for carrying out this experiment is out of the question. It falls to the lot of patient zeal to win back the solvable combinations from the consequent confusion, which must be regarded as it were a new beginning; and accident accomplishes what system leaves without result.

**Examples:**

1) Move 1. 2. 3. 4
5. 6. 7. 8
9. 10. 11. 12

And the following combinations remain:

A. 14. 15. 16. Insolvable.
B. 14. 15. 17. Solvable.

2) Move 1. 6. 7. 8 or 6. 7. 8. 9
5. 10. 11. 12
9. 13. 14. 15

And the figures remain:

A. 2. 3. 4 Solution G. 1. 2. 3. Solution
B. 2. 3. 4 Insolvable H. 1. 3. 2. Insolvable
C. 3. 4. 2 Solvable I. 2. 3. 1 Solvable
D. 3. 2. 4 Insolvable K. 2. 1. 3 Insolvable
E. 4. 3. 2. Insolvable L. 3. 2. 1. Insolvable
F. 4. 2. 3 Solvable M. 3. 1. 2 Solvable

Solutions to

F. 4. 2. 3 M. 3. 1. 2
4. 2. 3 — 3. 1. 2
6. 7. 8. 9 — 6. 7. 8. 9
14. 6. 7. 8 — 1. 2. 3. 4
6. 7. 8. 9 — 3. 6. 7. 8
14. 6. 7. 8 — 2. 3. 7. 4
6. 7. 8. 9 — 6. 7. 8. 9
14. 6. 7. 8 — 2. 3. 7. 4
6. 7. 8. 9 — 6. 7. 8. 9

and the figures remain:

A. 2. 3. 4 Solution G. 1. 2. 3. Solution
B. 2. 3. 4 Insolvable H. 1. 3. 2. Insolvable
C. 3. 4. 2 Solvable I. 2. 3. 1 Solvable
D. 3. 2. 4 Insolvable K. 2. 1. 3 Insolvable
E. 4. 3. 2. Insolvable L. 3. 2. 1. Insolvable
F. 4. 2. 3 Solvable M. 3. 1. 2 Solvable

5 and 9 are moved away.

We select at the outset the top and the bottom row:

1. 2. 3. 4 we are 5. 6. 7. 8
× × × × thus able 9. 10. 11. 12
× × × × to range 13. 14. 15. 16.

and they are solvable: 7. 8. 11. 8. 11
— 11 — 8 — 7
insolvable: 7. 11. 11. 8. 7
— 8 — 7 — 11

We can test, with less trouble, by some irregular combination, the accuracy of our plan, and at the same time the practicability of the chosen combinations.
A combination of this kind may be given:

6. 1. 3. 4
5. × × 15
11. × × 14
10. 9. 12. 13

The numbers which are wanting here are 2, 7, 8
Of which are solvable:

2. 7 8. 2 7. 8
-8 -7 -2

Insolvable:

2. 8 8. 7 7. 2
-7 -2 -8

Finally, the combinations already given are as follows:

Figures. Translated into words.

2. 3. 4 Middle.
1. 2. 3 High.
7. 8. 11 Solvable.
2. 7. 8

13. 15. 14 Low.
2. 4. 3 High.
1. 3. 2 Middle.
7. 11. 8

2. 8. 7 Insolvable.

14. 15. 13 Middle.
3. 4. 2 High.
2. 3. 1 Low.
8. 11. 7 Solvable.
7. 8. 2

14. 13. 15 Middle.
3. 2. 4 Low.
2. 1. 3 High.
8. 7. 11
7. 2. 8 Insolvable.

15. 13. 14 High.
4. 2. 3 Low.
3. 1. 2 Middle.
11. 7. 8 Solvable.
8. 2. 7

15. 14. 13 High.
4. 3. 2 Middle.
3. 2. 1 Low.
11. 8. 7
8. 7. 2 Insolvable.

From the continued recurrence of the same combinations we argue the correctness of our solution. Opposite assertions must be regarded as erroneous, until the contrary is shown by the printed tabular diagram.

MESSRS. CREMER

210, REGENT ST. AND 27, NEW BOND ST.

Are celebrated for the Entertainments and Amusements

They provide for Evening Parties—Garden Parties—Picnics—At Home—Weddings—Birthday Reunions—Comings of Age—Fancy Fairs—and for all other Festive occasions.

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An 1880 Newspaper Column On The Fifteen Puzzle

This clipping was tucked into a copy of the 1893 Hoffmann book; from the text on the reverse side, it appears to be from a February 13, 1880 issue of an Albany newspaper.

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IMP Puzzle - On Which the ThinkFun Version Was Based

Shown on page 102 of the *Fifteen* book. This 2.5 inch square metal puzzle was made in the 1933 to 1934 time frame in a number of similar variations, including different pegs on which the pieces slide (round vs. square), different colors, different text on the sides of the puzzle, different cases (shiny vs. textured red), similar but different booklets (all are 2.25 inches square with the same cover graphics), and even a braille version.

round pegs with black and white tiles, bottom edge says MADE IN U.S.A., left edge says "IMP" PAT. APPLIED FOR, right edge says MODERN BRANDS INC. N. Y., top edge is blank

square pegs with black and white tiles, bottom edge says "IMP" PAT. APPLIED FOR MADE IN U.S.A., top edge says MODERN BRANDS INC. N. Y., other edges are blank

square pegs with black and red tiles, bottom edge says "IMP" PAT. APPLIED FOR MADE IN U.S.A., top edge says MODERN BRANDS INC. N. Y., other edges are blank

square pegs with red and white tiles, bottom edge says "IMP" PAT. APPLIED FOR, top edge says IMPORTED BRANDS INC. N. Y., left and right edges are blank

square pegs with blue and white tiles, bottom edge says "IMP" PAT. APPLIED FOR, top edge says IMPORTED BRANDS INC. N. Y., left and right edges are blank

Copyright J. A. Storer
**IMP 1934 Booklet - Modern Brands**
(from the black & white round peg MODERN BRANDS version shown above)

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**ANSWERS TO PROBLEMS**

- **Problem No. 1**: A Impossible B Possible
- **Problem No. 2**: A Possible B Impossible
- **Problem No. 3**: A Possible B Impossible
- **Problem No. 4**: A Impossible B Possible
- **Problem No. 5**: A Possible B Impossible
- **Problem No. 6**: A Possible B Impossible
- **Problem No. 7**: A Impossible B Possible
- **Problem No. 8**: A Impossible B Possible

- Look for the daily IMP problem in your favorite newspaper.

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**Known the world**

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**IMP**

- I am IMP, the world's most fascinating number game. I am descended from the old "fifteen" puzzle. Today I am internationally famous. Abroad they call me Diablotin. I am the rage at parties in London, Paris, Berlin, Madrid, and Cairo. Famous people play with me. Children delight in my antics. Shunt-ins bless me for keeping them happily occupied. I have Chinese and Turkish cousins and a brother in Brazil.

---

**IMP**

- I have over a trillion numerical combinations to test your skill and patience. Try me when you are lonely—test me in competition with your friends—play me any time, any place. I won't wear out and I promise to keep you entertained.

- To start your IMP, slide my numbers around until you have duplicated the sixteen arrangements illustrated on this side of the folder. After you have completed them see if you can solve the problems on the back of this sheet. Try to duplicate combinations marked A and B in each problem. You will be surprised to find that one of the arrangements is impossible. The answers will tell you if you can't find out.

---

**from 1 to 15**

<table>
<thead>
<tr>
<th>1 2 3 4 5</th>
<th>6 7 8 9 10</th>
<th>11 12 13 14 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 13 14 15</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15</td>
<td></td>
</tr>
</tbody>
</table>

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**for the diagram**

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**from 1 to 16**

<table>
<thead>
<tr>
<th>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16</th>
<th>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 13 14 15 16</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16</td>
</tr>
</tbody>
</table>

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**by copyright J. A. Storer**
IMP 1933 Booklet - Modern Brands
(from the black & white square peg MODERN BRANDS version shown above)
IMP 1933 Booklet - Party Bridge Play Inc.
(from the black & red square peg IMPORTED BRANDS version shown above)
IMP Undated Booklet - *Imported Brands Inc.*
(from the blue & white square peg IMPORTED BRANDS version shown above)

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<table>
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<tr>
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<th>A2</th>
<th>A3</th>
<th>A4</th>
<th>A5</th>
<th>A6</th>
<th>A7</th>
<th>A8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1234</td>
<td>5</td>
<td>678</td>
<td>9</td>
<td>1135</td>
<td>2</td>
<td>468</td>
<td>3715</td>
</tr>
<tr>
<td>7</td>
<td>1134</td>
<td>5</td>
<td>678</td>
<td>9</td>
<td>1135</td>
<td>2</td>
<td>468</td>
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<td>7</td>
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<td>9</td>
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<td>2</td>
<td>468</td>
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<tr>
<td>7</td>
<td>1134</td>
<td>5</td>
<td>678</td>
<td>9</td>
<td>1135</td>
<td>2</td>
<td>468</td>
</tr>
</tbody>
</table>
```

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- All Europe is wild about this amazing new game. Millions of IMPS have been sold in Europe in the last few months. London is giving IMP parties, where all start a given problem at the same moment, and the first one to solve it gets the prize. In Berlin—Vienna—Rome—Cairo—along the Riviera—you see the IMP everywhere.

*Patent applied for*  
IMPORTED BRANDS, Inc.  
New York City

- Never a bored moment, wherever you are—if you have an IMP in your pocket or purse. You can play it anywhere, alone or in company—and it always becomes the centre of interest!
- All pieces are locked in—hence can never be mislaid or lost. IMP is built with scientific precision to last for years!
- A few of the many problems are given in this folder. Try a few! You’ll find that every friend, and every member of your family wants an IMP too!

Copyright J. A. Storer
Graphic Versions of the Fifteen Puzzle

Many fun and promotional versions of the Fifteen puzzle have been made with graphics of some kind rather than numbers. Sometimes the graphics are such that every square is unique, and so it is really exactly the same puzzle as the standard Fifteen. However, when there are two pieces that are identical, as is the case with each of the four Warner Brothers puzzles shown below, it is possible to be stuck at a configuration where the puzzle is finished except that two adjacent pieces are out of order. In this case, solve the puzzle with the positions of the two identical pieces exchanged. For example, for the bugs bunny puzzle shown below, the pieces that go in positions 5 and 9 are identical (note that this is not the case for positions 8 and 12 because piece 12 is not quite blank); if you are not able to complete the last two rows because of this problem, move the blank piece that appears to go in position 9 to position 5 (causing the blank piece that was in position 5 to now be in the last two rows), and now solve the last two rows.

Bugs Bunny, Warner B. 1979. (plastic, 4.8 by 3.9 inches)

Bugs Bunny / Daffy Duck, Warner B. 1979. (plastic, 4.8 by 3.9 inches)

Road Runner, Warner B. 1979. (plastic, 4.8 by 3.9 inches)

Tweety, Warner B. 1979. (plastic, 4.8 by 3.9 inches)

Copyright J. A. Storer
Roalex Versions of the Fifteen Puzzle

(card is 4.4 by 5.6 inches, puzzle is plastic 2.5 inches by 1/4 inch thick)
Roalex Versions of the Fifteen Puzzle, Continued

"Popeye", "Superman", "Yogi Bear", "Pebbles",
(card is 5 by 6 inches, puzzle is plastic 2.5 inches by 1/4 inch thick)
The Roalex Co. made numerous Fifteen puzzles based on cartoons and TV shows; some based on four related characters in each of the columns (such as the Popeye puzzle above) and some on individual characters (such as the Superman puzzle above that J. Storer played with as a child). These puzzles on their original cards (which sometimes had an extra piece on top) are a popular find for collectors (see further reading).

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Roalex Versions of the Fifteen Puzzle, Continued

(card is 6.1 by 5.3 inches, puzzle is plastic 2.5 inches by 1/4 inch thick)

Although many Roalex cards were horizontal ones of an approximate shape of width 1.25 times height as with the version of Popeye on the preceding page, other shapes were used, including a shape of about height 1.14 times width, such as this version of Popeye.

Copyright J. A. Storer
Roalex Versions of the Fifteen Puzzle, Continued
Here is what is on the back of the Popeye card of the preceding page:

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Other Versions of the Fifteen Puzzle

"Gem Puzzle No. 0", Matthias Rice, December, 1879.
(3.25 inches square by 1/2 inch thick cardboard box and 15 wood pieces;
shown on the cover page, page 8, and page 11 of the Fifteen book,
which dates this puzzle and gives some history)

The top of the box top says "THE GEM PUZZLE No. 0", the bottom of the box top says "Place the Blocks in the Box irregularly, then move until in regular order.", the left and right sides have been scratched out on this one, but originally on the left side was "MANUFACTURED BY M. J. RICE" and on the right side "For CARY, FULTON & Co., No. 29 Kingston Street, Boston."

Although the theme of the Fifteen book is that the origin of the Fifteen puzzle is unknown, it does indicate that the high popularity of the puzzle in the 1880 time frame started with this production of the puzzle in December of 1879, and describes a March 1, 1880 interview of Mr. Rice published in the Boston Herald that describes how he got the idea for making the puzzle from a version made in Hartford by deaf students, and sold for 75 cents apiece.

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Other Versions of the Fifteen Puzzle, Continued

"Drueke's 15 Puzzle", Wm. F. Drueke & Sons, Grand Rapids, Mich., circa 1960's.
(plastic, 2.5 inches square by 3/16 inch thick)

Copyright J. A. Storer
Other Versions of the Fifteen Puzzle, Continued

"15-Puzzle", Rudolph Steiner, NY, circa 1950's.
(cloth pouch, plastic puzzle, and cardboard instructions, 2.5 inches;
the back says THE "15-PUZZLE", ARRANGE NUMBERS, HORIZONTALLY, VERTICALLY,
DIAGONALLY, OR IN SPIRALS, ETC., PAT. APPLIED FOR, RUDOLPH STEINER CO., N.Y.C. U.S.A.)

"Lowe's 15-Puzzle", circa 1950's.
(felt lined pouch, plastic puzzle, and cardboard instructions, 2.5 inches;
shown on page 103 of the Fifteen book)

Copyright J. A. Storer
"15 Puzzle", Lowe's, circa 1940?

(4.75" square by 1" leather covered box with fifteen 1" square by 1/2" wood pieces)
Other Versions of the Fifteen Puzzle, Continued

"Great 16 Puzzle", Tit-Bits Teaser No. 6, circa 1930's.
(wood pieces in cardboard box, 3.6" square x 3/8" thick)

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Other Versions of the Fifteen Puzzle, Continued

"Celebrated Fifteen Puzzle", Fairy Queen Steamer, circa late 1800's?
(wood pieces in hinged wood box, 2.3" square x 3/4" thick)

The Fairy Queen steamer boat is mentioned in the 1885 *Thorough Guide Series for Scotland*; here is an excerpt from page 185:

Loch Eck Route. From Dunoon the coach take the coast-route through Kinn, Hunter's Quay—leafy and luxuriant—and Sandbank, whence it proceeds round the head of the Holy Loch into the Echaig valley, whose waters connect Loch Eck with the sea. At Inverkip the passengers are transferred to the little steamer "Fairy Queen," which conveys them the whole length of the loch.

Copyright J. A. Storer
Other Versions of the Fifteen Puzzle, Continued

Wood box with inlay of dancing couple and 15 wood pieces, 1837 ???
(4.6 inches square by 1 inch thick, pieces are 1 inch square by 1/4 inch thick, the date 1837 is hand written on the back)

This box has a beautiful inlaid top showing a dancing couple and looks quite old. The date of 1837 written on the back raises the fun possibility that this puzzle pre-dates the 1880's Fifteen puzzle craze that is documented in the Fifteen book. However, it is hard to give this date too much weight; it could have been written by anyone at anytime. Below are photos of the inside, which looks quite similar (including the hinges) to the inside of the Souvenir d'Egypt puzzle (made in France) that is shown on page 97 of the Fifteen book.
(4.5" square by 7/8" wood box and sixteen 1" diameter by 3/8" round painted wood pieces; paper label on box top and rules on underside of box top; same box as the one shown on page 25 of the Fifteen book)
"Little Buttercup Puzzle", B. F. Gould, 40 Bromfield St., Boston, 1880.
(cardboard box and 15 wood pieces, 3 by 3 by 1 inch;
the ridged tops have the numbers 1-15 and the smooth bottoms have letters
(close-ups of the piece P / 5 are shown above),
the directions on the box top ask you to spell LITTLEBUTTERCUP
(the fourth T and the C are a too worn to read in the photo above),
the Fifteen book shows this puzzle on pages 20, 36, and 49
where it credits manufacture to B. F. Gould and shows a Feb. 1880 advertisement)

Hopkins, Oxford, NY, circa 1880's.
(wood tray and 15 wood pieces, 3.7 inches;
1 is a bit burned, 5 is damaged, and 10 was lost and replaced by a blank,
the back is stamped "J. A. Hopkins MAKER Oxford NY",
from J. A. Storer's grandfather in Oxford NY)
"The Game of Fifteen Gem Puzzle", manufactured by Alan L. Lovejoy, Boston, 1880. (cardboard box, wood tray, and 15 wood pieces, 3.75 by 3.75 by 3/4 inches; shown on page 19 of the Fifteen book where it cites manufacture and date)

"The Game of Fifteen Gem Puzzle", circa 1880. (cardboard box, wood tray, and 15 wood pieces, 3.75 by 3.75 by 3/4 inches; shown on page 23 of the Fifteen book; box says "SENT TO ANY ADDRESS FOR 25 CENTS").
Other Versions of the Fifteen Puzzle, Continued

"Double Puzzle Of Crack Brain And Thirty Four", Heyer Brothers, Boston, circa 1880. (cardboard box, wood tray, and 16 wood pieces, 3.9 by 3.9 by 3/4 inches; directions on the inside of the box top; shown on page 40 of the Fifteen book)
(cardboard box and 16 wood pieces, 3.25 inches square by 9/16 inches;
shown on page 34 of the Fifteen book;
includes piece 16 to have the magic square as a second puzzle)

Copyright J. A. Storer
"The Boston Puzzle", circa 1880's.
(cardboard box and 15 wood pieces, 3 inches square by 5/8 inches;
different than the "Boston Puzzle" shown on page 24 of the Fifteen book)
Other Versions of the Fifteen Puzzle, Continued

"The Puzzle Of 15 and 16", circa 1880's.
(cardboard box and 16 wood pieces, 3.25 inches square by 51/2 inches; shown on page 38 of the Fifteen book;
"This little puzzle looks simple and easy but TRY IT ONCE.");
this one came with an article from a 1926 newspaper that reflects on the Fifteen Puzzle as something from the past when R. B. Hayes was president)

Copyright J. A. Storer
"The Popular Fifteen Puzzle", F. Passmore, London, circa 1880's. (cardboard box and 15 wood pieces, 4.2 inches square by 5/8 inches; directions on the inside of the box top; Shown on page 30 of the Fifteen book, but listed with a different English manufacture; a very similar box top is also shown inside the cover of the Fifteen book)
Other Versions of the Fifteen Puzzle, Continued

*German, circa 1880’s.*
(cardboard box and wood pieces, 2.5 x 2.5 x 3/8 inches; shown on page 121 of the *Fifteen* book)

On the page of the Fifteen book that shows this puzzle is a nice discussion of how newspapers from February and March of 1880 had a large number of "notes, articles, and poems that claimed that the Fifteen Puzzle was driving solvers insane and overcrowding the lunatic asylums".

*"15 Puzzle", Spear Works Bavaria 1915.*
(cardboard box and wood pieces, 4 x 4 x 5/8 inches; shown on page 119 of the *Fifteen* book where it cites manufacture and date)

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Other Versions of the Fifteen Puzzle, Continued

"Gem Puzzle" by John Heywood, Manchester, UK, undated. (cardboard box and 16 wood pieces, 3.4 x 3.4 x 1/2 inch; shown on page 29 of the Fifteen book)

"15 and 34 puzzle", De La Rue & Co., London, circa 1880. (cardboard box and 16 wood pieces, 3.75 x 3.75 x 5/8 inch; shown on page 35 of the Fifteen book)

Copyright J. A. Storer
"King George VI Coronation Puzzle", circa 1937.
(cardboard box and 16 cardboard pieces, 4.25 x 4.25 x 1/4 inch;
inside of box top has directions;
inside of the box bottom advertises Meadow Butter;
both the puzzle pieces and the box top have photos of the royal family;
to read about king George VI, see for example the Wikipedia Page)
Other Versions of the Fifteen Puzzle, Continued

(3.3" x 3.3" x 9/16", sixteen 3/4" square by 1/2" thick wood pieces)
Other Versions of the Fifteen Puzzle, Continued

(cardboard box and 15 wood pieces, 4.2 x 4.2 x 5/8 inch; this red version appears to have a second 6 instead of a 9, same manufacturer and box size / style as the Time and Missionary Puzzles)

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Other Versions of the Fifteen Puzzle, Continued

"The Combination Puzzling Puzzles", copyright Canada 1934.
(wood box, 15 wood pieces, 3.9 by 3.9 by 7/8 inches; flip the puzzle over and the backs of the pieces have the letters GDOAETYNANALNI?, ? for piece 13 that has been replaced and had A hand written on the back)

Adams Co., unknown age.
(cardboard case and metal puzzle, 3.25 inches)

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Other Versions of the Fifteen Puzzle, Continued - "Dukes Of Hazzard"

(plastic, 4.8 by 3.9 inches)

(plastic, 4.8 by 3.9 inches)

(plastic, 4.8 by 3.9 inches)

(plastic, 4.8 by 3.9 inches)

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Other Versions of the Fifteen Puzzle, Continued

Superman, D C Comics 1978.
(plastic, 4.8 by 3.9 inches)

Batman, D C Comics 1978.
(plastic, 4.8 by 3.9 inches)

Spiderman, D C Comics 1978.
(plastic, 4.8 by 3.9 inches)

Popeye, King Features 1981.
(plastic, 4.8 by 3.9 inches)

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Other Versions of the Fifteen Puzzle, Continued

Snap Crackle Pop, Kellog Company's 1979. (plastic, 4.8 by 3.9 inches)

Dig’Em Kellog Company's 1979. (plastic, 4.8 by 3.9 inches)

Toucan Sam, (c) Kellog Company 1979. (plastic, 4.7 by 3.8 inches)

101 Dalmatians, Disney, circa 1960's? (plastic, 3.5 by 3 inches)

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Other Versions of the Fifteen Puzzle, Continued

Circa 1960's.
(brass, 3.25 inches)

Hungarian, circa 1950?
(metal, 2.75 inches)

The Monitor, Artist Series, Philips, no date.
(plastic, 3.5" x 2.9" x 1/4";
sticker on back shows solved position)

Alphabet, circa 1960's.
(plastic, 2.5 inches)

Marge & Homer Simpson, circa 2000.
(plastic, 2.5 inches)

(plastic, 2.5 inches)

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Other Versions of the Fifteen Puzzle, Continued

Santa Claus, circa 2000?
(plastic, 2+3/4" x 4.5" x 3/16")

Donald Duck, Walt Disney Productions, circa 1960's?
(plastic, 2+5/8" x 2+5/8" x 3/16")

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Further reading:

Slocum's Page: http://www.puzzleworld.org/PuzzleWorld/jerry_slocum.htm
Baxter's Page: http://www.johnrausch.com/SlidingBlockPuzzles

May Patent, from: www.uspto.gov - patent no. 50,608
McCleary Patent, from: www.uspto.gov - patent no. 284,037
Bradshaw Patent, from: www.uspto.gov - patent no. 427,392
Cook Patent, from: www.uspto.gov - patent no. 476,980
Anderson Patent, from: www.uspto.gov - patent no. 483,276
Johnson Patent, from: www.uspto.gov - patent no. 1,555,980
Fritz Patent, from: www.uspto.gov - patent no. 1,693,711
Nesis Patent, from: www.uspto.gov - patent no. 5,785,318

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