## BUILDING-BLOCK ANAGRAM PUZZLE

## LEONARD GORDON

Tucson, Arizona
Here is a project that might appeal to the anagrammers among Word Ways readers. Anagramming is not my game, but maybe others can come up with something clever.

Sam Loyd's Fifteen Puzzle is familiar to most. Mix up the blocks and then slide them to the home position (1 to 15 in order). After Loyd's great success, someone devised the clever RATE YOUR M1ND PAL variation. I do not know how popular it was, but it is described in several books. Both puzzles are available today, usually being sold as party favors. The third variation below is different. I have not seen it, but it was described to me by John Beasley, a Cambridge professor and author of several books on puzzles and games. It involves an anagram:


The theory of these puzzles is given in nearly every puzzle book. Briefly, only half of all possible arrangements can be reached by sliding from a given start. When all blocks are different, some puzzles can be made impossible, which is what loyd did before offering a cash prize. When all blocks but two are different, the puzzle can always be solved, but only if the two like blocks are exchanged. This is the gimmick of both puzzles given above.

There are many different sliding-block puzzles. A couple from Japan rearrange English words, but none that 1 know of employ straightforward anagrams. Good anagrams should be possible. There is no need to keep the $4 \times 4$ format; $3 \times 5$ or $3 \times 6$ are probably better, but $2 \times 5,2 \times 6$ or $2 \times 7$ are also OK. The rules for construction:

1. Both sentences must fill all but one space
2. All letters should be different, or all but one pair should be different
3. If all the letters are different, it's OK to use one blank block in addition to the space
If one can't quite satisfy Rule 2 , we can usually provide a fix. Two colors were used to prevent exchanging the two As in RATE YOUR MIND PAL. Gluing blocks together has also been used. But more importantly, find good anagrams. Wé can almost always figure out how to use one as a sliding-block puzzle.

As a starter, the editor suggests the well-known

$$
\begin{array}{ccccccccccc}
W & O & M & A & N & & M & O & T & H & E \\
\text { H } & \text { I } & \text { T } & \text { L } & \text { E } & R & \text { I } & \text { N } & & L & A \\
\hline
\end{array}
$$

Since all letters are different, we had a 50-50 chance that solution would be possible. We were lucky; I found a solution in 60 moves. See what you can do. There is no theory on minimum moves; it's all trial-and-error. Answer can be found in Answers and Solutions at the end of this issue.

BUY, SELL, TRADE
For Sale: The Beth Book, written by Sarah Grand and published by Appleton \& Co. of New York in 1897, is the fictional account of the girlhood and young womanhood of Beth, an English girl. It's not great literature, but on page 217 it contains the shortest apparently-accidental pangrammatic window in English literature: in one sequence of only 67 letters, every letter of the alphabet is found. \$6 from the editor.
For Sale: Bedside Manna, edited by Frank Scully, and published by Simon and Schuster in 1936, contains a variety of humorous stories, puzzles, games and the like to beguile the hospital patient. On page 87, the introduction to the Scully Spelling Bee uses the word pneumonoultramicroscopicsilicovolcanokoniosis (with two spelling errors!), the first time it appeared in a book (it was in the New York Herald Tribune in 1935; see the November 1989 Word Ways). \$4 from the editor.
For Sale: The Wordtree, by Henry Burger, privately published in 1985. This is the book, advertised on the back cover, which purports to split all verbs into their essential (irreducible) elements (touzle $=$ handle + brusque, handle $=$ hand + grasp, hand = paw + thumb, etc.). \$20 from the editor (less than 15 per cent of its retail price!).

