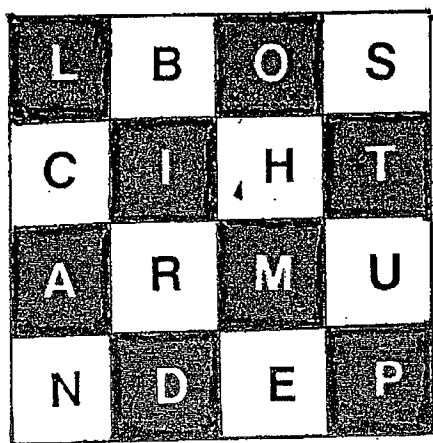


MAGIC ON A TRANSPOSAL PUZZLE

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A solution to the transposal puzzle on the back cover appears below.



The Words

SLOB	CLAN
CHIT	BIRD
ARUM	HOME
PEND	PATS

The black-white checkerboard coloring emphasizes that the diagonals transpose into DIPLOMAT and BRUNCHES. This fact will be used in a magic effect, but not mentioned by the magician.

THE MAGIC EFFECT. The subject will select a letter from the 16 and place a rook on it. It is preferable to use the solution on the uncolored grid of the back cover for the magic. The subject will move the rook according to the magician's instructions and will cross out grid letters as the magician demands it. After 15 moves exactly one letter is left unmarked and it is the subject's first choice and his final move places the rook on it.

A move consists of a number of orthogonal rook moves; up or down, right or left, backwards or forward, over any squares, marked out or not, but always moving so as to end on an unmarked square.

THE METHOD. The magician determines surreptitiously the starting letter by either using a force or a method that will be described later. As an example, suppose the subject has chosen P as his start. The magician mentally notes that this choice is on the DIPLOMAT squares. The magician now directs the subject to cross out the letter B and to move an odd number of squares. Next D is crossed out and the magician asks for another odd number of rook moves. Note that moving always an odd number of moves will cause the rook to alternately land on opposite black-white squares and the magician can always ask a letter to be crossed out on the other diagonal leaving always the letter P not crossed out.

We often ask the subject to spell the word QUEEN for his moves. This keeps the chess theme and it is always possible to reach an unmarked square with five moves. This will assure that the subject always lands on his starting letter.

The magician could always change the effect by writing down a letter choice and putting it in an envelope. Now knowing on which sources DIPLOMAT or BRUNCHES the subject started on, he can maneuver to force the subject to land on the letter in the envelope.

Our methods of letting the subject choose a letter that we can determine at the start is by using four playing cards with the words LIMP, TOAD, CURB, and HENS written on the faces. These cards are mixed face down and the subject chooses one. The cards' backs are marked so that we can determine the word. We then introduce four more cards: an ace, a deuce, a trey and a four and the subject places one of these face up and uses that number to choose that numbered letter in his word to start on. Of course the magician will know it too.

This type of magic effect has a long history and is usually done on a 3x3 grid. Martin Gardner's article "The 3-by-3 Matrix" in the book *Martin Gardner Presents*, 1993, Kaufman and Greenberg, summarizes much of the history starting with his own version in *Scientific American* (August, 1960). In 1962 Gene Gordon marketed Hal Newton variations and in 1972, Lou Tannen's Magic Shop sold Tony Spina's "Room for Doubt" effect on nine castle rooms. Other notable versions include Robert Neale's "The Two Guns", 1973 and Max Maven's article in *Games* (September 1973). Gardner reports that "in 1990 David Copperfield made effective use of the trick on one of his TV spectacles. I am told that Max Maven provided help on the presentation. . .".