THE NEW MODEL FIVE-JOG KNIGHT

JIM PUDER
Saratoga, California

Now lumbering into the lists comes the New Model Five-Jog Knight—no, not some odd-gaited Cromwellian cavalryman, but a new, improved, larger, shinier and more complete version of the vanquished old Five-Jog Knight (who now, in the newcomer’s brilliance, seems a knight light indeed). As a puzzle, the New Model looks to be an even thornier challenge than its less pointy predecessor; accoutered with no fewer than 16 new pathways (omitted by oversight from the old model) in its network, it boasts nearly twice as many nodes, network segments and total letters:

To review the rules for these puzzles, the oval nodes in the knight’s network are to be filled in with words (preferably headwords in standard dictionaries) which have the same number of letters as their nodes have straight-line connecting links with other nodes (as indicated by the numbers in the node ovals). Each node is required to have one letter in common with each of the nodes to which it is connected. To prevent solutions from being too easy, restrictions are placed upon the letters which may be used in them. In explaining such restrictions, it may be helpful to visualize, as Ross Eckler suggests, each connecting link as representing a unique letter; since each link generates that letter in each of the two nodes that it connects, the total number of letters required for the solution of a knight’s puzzle will obviously be twice the number of its links.

Possessing a total of 70 links, the New Model thus requires 70 unique letters for its solution. The most elegant solution would utilize just three complete alphabets (a total of 78 letters), with the letters of the three alphabets being distinguished from one another (i.e., rendered “unique”) by being written in different forms. The difficulty with this three-alphabet solution is that it yields...
a maximum of only 36 vowels to be distributed among 34 words, ten of which are five- to seven-letter words. Certainly there are a fair number of five-, six- and seven-letter words in English that use only one vowel, but it nonetheless seems a bit much to insist that any solution include no fewer than eight of these. Therefore, while leaving the possibility of a three-alphabet solution open for more optimistic solvers, let us officially set the bar for the New Model Knight’s puzzle at a less daunting height and allocate solvers four complete alphabets to assign to their links: one written in upper case letters, one in lower case, one in upper case underlined, and one in lower case underlined. (Thus, a seven-letter word in a solution might look something like “gALuMPh.”)

As a final condition, whereas solvers may select whichever letters they wish from the two underlined alphabets, solutions must include the two non-underlined alphabets in their entirety.

As of the time that this issue of Word Ways hits the mail stream, no one will as yet have attempted either a three-alphabet or a four-alphabet solution of this puzzle. In that regard, please note that only a couple of knight’s-move networks such as these really make good letterplay puzzles; in the entire $n$-Jog Knight series, in my opinion, only the Four-Jog and Five-Jog Knights meet the three essential criteria of interestingness, challenge, and solvability. Of these two, the Four-Jog has been solved, and now only the complete Five-Jog remains to be conquered. And in all of eternity, this puzzle can only be solved for the first time (in English) once; after that, any further solutions will merely be repeats—and who watches those? History beckons.

A POEM

MARTIN GARDNER
Norman, Oklahoma

This is an excerpt from Gardner’s 1969 book *Never Make Fun Of A Turtle, My Son* (Simon and Schuster, illustrated by John Alcorn).

**Riding with Mom**

When Mom takes you out
For an afternoon ride
And allows you to sit
On the seat by her side,

Try not to disturb her
With ear-splitting cries,
Don’t yank her hat down
Over both of her eyes,

Or tickle her neck
Or climb onto her knee,
Unless you would love
To crash into a tree!