



# DOUBLETS

## A WORD PUZZLE

*Lewis Carroll*

In a March 12, 1878 entry in his diary, Charles Dodgson (better known these days by his pen name, Lewis Carroll) first recorded his invention of what he then called “Word Links” and soon renamed “Doublets.”<sup>1</sup> Most modern writers – and as best we can tell everyone in the wikiworld – baldly assert that Dodgson was the game’s inventor. But Dodgson himself early on conceded the possibility that he was not first to the idea (see page 532 below), with a good-natured wish that those who had expressed his bright idea before he did might perish. What follows are:

1. The first few pages of Dodgson’s 1880 pamphlet explaining his rules for playing Doublets (reprinted from the 1879 issue of *Vanity Fair* in which he first introduced the public to his Doublets), followed by
2. The *Green Bag*’s own Doublets competition.

—*The Editors*

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*Charles Lutwidge Dodgson was a Victorian polymath. This version of “Doublets: A Word Puzzle” is from Stuart Dodgson Collingwood, ed., THE LEWIS CARROLL PICTURE BOOK 275-280 (1899) (reprinting the second edition of Carroll’s original “Doublets” pamphlet).*

<sup>1</sup> Martin Gardner, *Word ladders – Lewis Carroll’s doublets*, 80 *Mathematical Gazette* 195 (1996).

Lewis Carroll



“Double, double,  
Toil and trouble.”

## PREFACE

On the 29th of March, 1879, the following article appeared in *Vanity Fair*:—

### A NEW PUZZLE

The readers of *Vanity Fair* have during the last ten years shown so much interest in the Acrostics and Hard Cases which were first made the object of sustained competition for prizes in this journal, that it has been sought to invent for them an entirely new kind of Puzzle, such as would interest them equally with those that have already been so successful. The subjoined letter from Mr. Lewis Carroll will explain itself, and will introduce a Puzzle so entirely novel and withal so interesting, that the transmutation of the original into the final word of the Doublets may be expected to become an occupation to the full as amusing as the guessing of the Double Acrostics has already proved.

In order to enable readers to become acquainted with the new Puzzle, preliminary Doublets will be given during the next three weeks — that is to say, in the present number of *Vanity Fair* and in those of the 5th and 12th April. A competition will then be opened — beginning with the Doublets published on the 19th April, and including all those published subsequently, up to and including the number of the 26th July — for three prizes, consisting respectively of a Proof Album for the first and of ordinary Albums for the second and third prizes.

The rule of scoring will be as follows:—

A number of marks will be apportioned to each Doublet equal to the number of letters in the two words given. For example, in the instance given below of “Head” and “Tail,” the number of possible marks to be gained would be eight; and this maximum will be gained by each one of those who make the chain with the least pos-

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sible number of changes. If it be assumed that in this instance the chain cannot be completed with less than the four links given, then those who complete it with four links only will receive eight marks, while a mark will be deducted for every extra link used beyond four. Any competitor, therefore, using five links would score seven marks, any competitor using eight links would score four, and any using twelve links or more would score nothing. The marks gained by each competitor will be published each week.

“*Dear Vanity*,— Just a year ago last Christmas, two young ladies — smarting under that sorest scourge of feminine humanity, the having ‘nothing to do’ — besought me to send them ‘some riddles.’ But riddles I had none at hand, and therefore set myself to devise some other form of verbal torture which should serve the same purpose. The result of my meditations was a new kind of Puzzle — new at least to me — which, now that it has been fairly tested by a year’s experience, and commended by many friends, I offer to you, as a newly-gathered nut, to be cracked by the omnivorous teeth which have already masticated so many of your Double Acrostics.

“The rules of the Puzzle are simple enough. Two words are proposed, of the same length; and the Puzzle consists in linking these together by interposing other words, each of which shall differ from the next word *in one letter only*. That is to say, one letter may be changed in one of the given words, then one letter in the word so obtained, and so on, till we arrive at the other given word. The letters must not be interchanged among themselves, but each must keep to its own place. As an example, the word ‘head’ may be changed into ‘tail’ by interposing the words ‘heal, teal, tell, tall.’ I call the two given words ‘a Doublet,’ the interposed words ‘Links,’ and the entire series ‘a Chain,’ of which I here append an example:—

H	E	A	D
h	e	a	l
t	e	a	l
t	e	l	l
t	a	l	l
T	A	I	L

“It is, perhaps, needless to state that it is *de riguer* that the links should be English words, such as might be used in good society.

“The easiest ‘Doublets’ are those in which the consonants in one word answer to consonants in the other, and the vowels to vowels; ‘head’ and ‘tail’ constitute a Doublet of this kind. Where this is not the case, as in ‘head’ and ‘hare,’ the first thing to be done is to transform one member of the Doublet into a word whose consonants and vowels shall answer to those in the other member (*e.g.* ‘head, herd, here,’) after which there is seldom much difficulty in completing the ‘Chain.’

“I am told that there is an American game involving a similar principle. I have never seen it, and can only say of its inventors, ‘*pereant qui ante nos nostra dixerunt!*’

“Lewis Carroll.”

## RULES

1. The words given to be linked together constitute a “Doublet,” the interposed words are the “Links,” and the entire series a “Chain.” The object is to complete the Chain with the least possible number of Links.

2. Each word in the Chain must be formed from the preceding word by changing one letter in it, and one only. The substituted letter must occupy the same place, in the word so formed, which the discarded letter occupied in the preceding word, and all the other letters must retain their places.

3. When three or more words are given to be made into a Chain, the first and last constitute a “Doublet.” The others are called “Set Links,” and must be introduced into the Chain in the order in which they are given. A Chain of this kind must not contain any word twice over.

4. No word is admissible as a Link unless it (or, if it be an inflection, a word from which it comes) is to be found in the following Glossary. Comparatives and superlatives of adjectives and adverbs, when regularly formed, are regarded as “inflections” of the positive form, and are not given separately, *e.g.*, the word “new” being

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given, it is to be understood that “newer” and “newest” are also admissible. But nouns formed from verbs (as “reader” from “read”) are *not* so regarded, and may not be used as Links unless they are to be found in the Glossary.



### NEW CHALLENGES FROM THE BAG

To you, *Green Bag* reader, we offer a series of simpler, if no less difficult, challenges. Complete any number of the Doublets below in as few steps as you can. (Note that there are no Set Links.) In place of the “Glossary” referred to in Rule #4 above, please use the following dictionaries:

*Black’s Law Dictionary* (West 8th ed. 2004)  
*The Random House Dictionary of the English Language*  
*The Shorter Oxford English Dictionary*  
*Webster’s Second New International Dictionary*  
*Webster’s Third New International Dictionary*

Send your completed chains on a single sheet of paper, with your name, address, and signature, to this address: The Green Bag, Inc., 6600 Barnaby Street NW, Washington, DC 20015.

### GREEN BAG DOUBLETS

Try your hand at the following, all of which are drawn from Bryan A. Garner, *Black’s Law Dictionary* (West 8th ed. 2004):

LIEN to TORT

PONE to JUST

DEAL to BOND

For each Doublet, the usual knickknack to the first five readers who send us a chain with the least number of changes.

