A FIVE-YEAR TOPICAL INDEX

The following index has been designed to help the reader easily locate specific examples of wordplay appearing in the first five volumes of Word Ways. It was decided at the outset that an alphabetical index would not do; the field of recreational linguistics is so new that terminology is far from standardized. Nearly everyone knows what an anagram or a palindrome is; fewer people can identify an isomorph or a pangram; almost no one can define a polygram or a switch word. Instead, a topical index has been designed; a taxonomy of wordplay has been set up so that the casual reader can rather quickly move to the relevant section of the index and search through a small collection of closely-related descriptors to find what he wants.

No claim is made that this taxonomy is definitive; it is quite likely that no room has been included for important (but as yet unsuspected) topics in recreational linguistics. Nevertheless, the person interested in understanding how different kinds of wordplay relate to each other should find novel connections and insights.

The index has been made as self-explanatory as possible. The descriptors are intended to be suggestive rather than definitive; however, sample words with the specified property are often given in parenthesis following the descriptor. All references are given in volume-page form; thus, 5-23 refers to the 23rd page in Volume 5 (in the February 1972 issue). Note that relevant material may continue on for several pages.

Readers may be helped by an overview of the way in which the index has been put together. Broadly speaking, words can be classified in three different ways -- by sight, by sound, and by meaning. The emphasis in Word Ways during the first five years has been on words as collections of letters (sight); some attention has been paid to their meaning; relatively little consideration has been given to words as collections of sounds. The imbalance between sight and sound may, perhaps, reflect the fact, well-known to psychologists, that the brain receives much more information through the eye than the ear. Academic linguistic studies place much greater emphasis on meaning than either sight or sound; on the other hand, word puzzles and games (from Carroll, Dudeney and Bombaugh onward) stress sight and sound. Word-puzzles, however, focus on the individual word oddity; one of the major objectives of recreational linguistics has been to integrate these scattered results, to understand how different word properties relate to each other, and to discover (as a result of this integration) new logological world to conquer. The first book on recreational linguistics to attempt a unified approach, Dmitri Borgmann's Language

on Vacation, was published in 1965. This index builds on Borgmann's insights, taking advantage of experience gained during five years of Word Ways to attempt a more elaborate and suggestive classification of wordplay.

Although the sight-sound-meaning classification appears to be a natural and useful one, it does not easily embrace all of the articles in Word Ways. Therefore, the index has been divided into two major parts: Language Research (using the sight-ound-meaning classification) and Entertainments (special formats, such as fiction, poetry, puzzles and games; special vocabularies, such as place names, personal names and lists of related words; book reviews and dictionary errors). The remainder of this introductory article will be devoted to an elaboration of the sight-sound-meaning classification.

How can words be classified by sight? At least four dimensions can be distinguished:

1) some properties of words focus upon all the letters in a word whereas other properties focus upon only part of a word -- the letters in the remainder are irrelevant
2) next, one can distinguish between properties involving a single word and properties which can be exhibited only for a group of words (relations of different words to each other)
3) furthermore, one can draw a dichotomy between properties of words in which the alphabetic arrangement of letters plays no role, and properties of words in which this role is essential
4) finally, consider a change of the basic unit: sentences as collections of words instead of words as collections of letters

This suggests that word appearance properties should be displayed in a 2-by-2-by-2-by-2 table; however, many of the boxes in this table would be empty. Accordingly, various boxes have been combined to produce a nested structure:

1) all letters used (single words, alphabet-independent, letter units)
2) some letters used (single words, alphabet-independent, letter un)
3) groups of words (alphabet-independent, letter units)
4) alphabet-dependent (letter units)
5) word units

In general, each line exhibits a successively coarser classification; the final line includes eight boxes of the original table.

In cryptography, two basic cipher systems are used -- permutation ciphers, in which the letters of a message are scrambled, and substitution ciphers, in which the letters of a message are replaced (for example, all A's with C's, all B's with M's, etc.). These two transformations give the logologist two different methods for classifying words into groups according to properties based on all letters: two words can be transpositions (have the same letters), or two words can be isomorphs (have the same pattern). Isomorphic groups of particular in-

terest include palindromes, tautonyms and switch words. If these two transformations are combined, words can be classified in yet another way. Two words are christened transmorphs (in earlier Word Ways issues, anagrammatic isomorphs) if they have the same number of letters of various kinds; for example, two seven-letter words are transmorphs if they consist of two different letters used twice and three different letters used once. Transmorphic groups of particular interest are isograms (each letter once), pair isograms (each letter twice), polygrams (each letter at least twice), and pyramid words (one letter once, one letter twice, etc.). The study of long words is a limiting case of transmorphs in which one is interested not in the number of letters of each kind, but simply in the number of letters.

What can be said about properties involving some, but not all, of the letters in a word? To begin with, there is a transitional situation in which one is interested not in the pattern of all letters in a word, but only those letters at certain fixed positions in the word -- heads 'n tails words, words with doubled beginnings and endings, words with specified letters at the beginning and end. This leads to a consideration of various letters in a word without regard to their location in the word -- words containing several rare letters, words containing the five vowels once each, words containing multiple appearances of the same letter. If all letters are present in a word, it is called a pangram. Since no such words exist, a pangram is more often defined as a set of words collectively containing all the letters, usually in a literary format. (However, if no extra letters are present in a pangram, it is more logically classified as an isomorph of 26 letters). If single letters of various sorts, why not groups of letters without regard to location -- bigrams, trigrams, repeated bigrams or trigrams, multigrams such as internal palindromes? The groups of letters need not be contiguous -- consider, for example, alternating monotonies. There is no need to restrict oneself to a study of letters; other symbols, such as hyphens, accents, internal capitals and the like can be catalogued. Finally, one can consider words having the absence (instead of the presence) of certain letters. Since the absence of any letter or group of letters in a single word is hardly noteworthy, most lipograms consist of groups of words in a literary form.

One of the most interesting, and difficult, fields of recreational linguistics is the study of the relationship of groups of words to each other. Many of the single-word problems outlined in the preceding two paragraphs can be solved (at least in principle) by a computer search through a dictionary tape, but it is a much more lengthy job for a computer to assemble a group of words in which each word depends upon the choice of all others. Perhaps the simplest example of a word group is a pair of words differing only in one letter in the same position (as valUe-valVe), or differing only in one letter without regard to position (as seXual-sQueal). Both ideas can be readily generalized to larger groups. Sequences of words in which each successive pair differs in only one letter in the same position are word ladders, and onalosis and garble groups are nothing but densely-packed word groups in which a maximum number of ladder-first-steps (or full ladders) are possible. Similarly, if transposition is allowed so

that one is comparing the letters in one word with the letters in another word, a variety of elaborately-structured groups of words is possible: for example, groups in which each m-word subgroup has exactly one letter in common, or groups in which each possible pair of letters appears in exactly n different words. In the limit, one can look for groups of words in which no pair of words has the same letter in the same position (forming the basis of a strategy for the game of Crash), or no pair of words has the same letters regardless of position (forming the basis of a strategy for the game of Jotto).

Other group structures are possible. One broad class (called word steps in the index) is based on a sequence of letters, all different or with repetition allowed, stretched out in a line or joined head-to-tail in a circle. The objective in all four cases is to form the sequence in such a way that an n-letter-wide "window" sliding along the sequence will always reveal a word (or, more generally, a group of letters transposable into a word). More relaxed restrictions are possible, too. Successive words derived from the sequence can have less overlap, down to the limiting case in which the tail of one word is the start of the next word (this places so little difficulty on the construction that usually additional additions are invoked, such as cycling the overlap letters through the alphabet). A second broad class (called group transpositions in the index) was originally synonymous with word squares, n-by-n squares of letters which must form words when read in the horizontal or vertical directions (or, more generally, must be transposable to words in the two directions). Word squares, however, have been extensively generalized -- word rectangles, higher dimensions (word cubes), additional restrictions (Latin squares), different rules for building new word groups out of old (pentomino puzzles). Broadly speaking, word squares and their relatives can be regarded as transpositions of groups of words into other groups of words under various rules.

Finally, it is possible to consider groups of words whose members do not all have the same number of letters. Hospitable words, for example, can be transformed into other words by the addition of a suitable letter in any position between letters; charitable words remain words if any letter is deleted. Successive beheadment or curtailment of a word to produce a new word leads to word groups with a triangular (or truncated triangular) structure. More generally, a charade breaks up a word into a group of shorter words. If a letter can be deleted anywhere in the word and the remaining letters transposed to form another word, a transdeletion has taken place; again, successive transdeletions lead to triangular groups of words. The transdeletion index of a word is the minimum number of letters that must be added to a word in order that a new transposed word be formed.

Shifting attention from word groups to alphabetic dependence, one can distinguish two classes of wordplay -- that dependent upon the order of the letters in the alphabet, and that dependent upon the scores of the letters (A = 1, B = 2, etc.). The former is genuinely logological, but the latter has been criticized as recreational mathematics masquerading as wordplay. Obviously, it is difficult to draw a firm bound-

ary between these territories. One can look for words which have all their letters from the first half of the alphabet (or, indeed, any shorter segment). It is somewhat easier to look for words containing a group of alphabetically adjacent letters scattered through them, either in random or proper alphabetic order. Letter-scoring leads to a variety of quasi-mathematical exercises, such as numerical tautonyms, difference words, poker words, and centrally balanced beam words. (Other examples in Dmitri Borgmann's book are shift words and ACE words.)

There are only a few Word Ways examples illustrating the final aspect of the appearance of words: properties based on words as units instead of letters as units. This field of wordplay is so underdeveloped that it is unreasonable to impose a logical structure on it at this time. It seems fairly evident that one cannot classify by analogy with letters as units.

The classification of words according to sound is much less elaborate than that for words according to sight. Earlier, the basic units were letters; now, they are syllables or phonemes. No one seems to have considered using phonemes as surrogates for letters, and repeating the various studies outlined above -- phonetic palindromes, transposals, etc. One difficulty seems to be that the phonetic "alphabet" is rather large (there are many subtle variations in vowel sounds) and ill-defined (one sound can grade continuously into another). Furthermore, regional variations in pronunciation are far greater than regional variations in spelling.

The relationship between letters and syllables has been occasionally explored in Word Ways -- long one-syllable and two-syllable words, as well as words with many syllables per letter. Homonyms (words sounded the same but spelled differently) and heteronyms (words spelled the same but sounded differently) are inverse concepts which can be developed in such surprising ways as homonymic sentence-pairs and heteronymic sentence-pairs.

The classification of words according to meaning is decidedly less satisfactory. Certain topics in this section are related to the structure of language -- how words are related to each other. Just as words can be classified by means of their letters or syllables, so can they be classified by meaning: synonyms and antonyms. In conveying meaning, the structure of language becomes important, and words play many specialized roles: parts of speech, tenses and conjugations, singulars and plurals. Of almost equal importance is the distinction between the objective meaning of a word (as given in a dictionary) and the subjective meaning of a word (how people react to it): connotations.

Other topics are related to the problems that people encounter in communicating thoughts and ideas by means of language. Problems arise in meaning because language is not a static thing; in the words

of a well-known Protestant hymn, time makes ancient good uncouth: language change and specialization. In particular, if people cannot find a word in the existing language to express their meaning, they may invent a new one: coinages. Ultimately, language change leads to different dialects and completely different languages, and the problem of communicating meaning is solved in a more formal way: translation. Problems also arise in meaning because language is a human development; it does not always follow a logical set of rules, and contradictions can arise: ambiguities and inconsistencies.

INDEX

THE SIGHT OF WORDS

A. Properties Involving All Letters in the Word

1. Transpositions (DEARTH-THREAD-HATRED)
Classification: 4-letter types 4-55 4-169, 5-letter types 3-25, selected 6-letter types 3-27
Entries in a transposition dictionary 4-28 4-143
Factorization of transpositions 4-161
Multiple transpositions 4-3 4-143, including capitalization and punctuation 4-82 4-168
Specific transpositions: long words 2-24 2-119, mathematical 3-112, state names 3-222 4-14 5-15, Caroline 4-68
Transposition puzzles: animals 1-146 2-162, elements 1-55, countries 1-97, proverbs 1-87, anatomy 1-113, cities and states 4-119, cities and towns 5-210
Sentence-length transpositions: telanagrams 3-35 3-82, transpose every word in sentence separately 3-138 5-15

2. Isomorphs (EXCESS-BAMBOO-MAUMEE)
Classification: 4-letter types 4-228 5-5, 5-letter types 4-113, 6-letter types 4-229 5-5
Isomorph dictionary need 4-227, fulfillment 5-3 5-205
Specific word patterns 3-48 4-131 4-135 5-5
Longest non-unique word pattern, shortest unique pattern 5-44
Ambiguous substitution ciphers 3-241 4-55 4-119
Simultaneous isomorphs and transpositions 5-104 5-174
Palindromes (DEIFIED): long 3-5, each central letter 4-133 4-210 5-6, Abplanalp 5-113 5-177, catoptrons (mirror reflection) 1-39 4-92 4-144
Switch words (IN/TERPRET/IN/G): 1-11 2-59 5-6 5-205
Tautonyms (MURMUR): 1-142 5-24 near tautonyms 5-24

3. Anagrammatic Isomorphs (BUGABOO-MILLION-COXCOMB)

Classification: 10-letter types 4-231 5-14
Specific word patterns 4-135
Sparseness (total distinct letters/total letters) 5-49 5-81 5-109
Isograms (AMBIDEXTROUSLY): long 3-123 5-22, dictionary 5-79, 26-letter sentence (pangram) 1-101 5-205, transpositions of long isograms 3-29 5-145
Multiple isograms (ARRAIGNING): 1-201 4-136 4-142 5-7 5-25 5-143 5-205
Polygrams (UNNUN, NONILLION): 5-49 5-110
Pyramid words (EFFETE, SLEEVELESS): 3-109 5-26 5-236
Most different letters 5-22

4. Length of Words
Dictionary words, 23-plus letters 5-82 5-145 5-205, longest Websterian word 1-33 4-116 5-22, one-letter words 5-238
Chemical nomenclature 1-33 4-56 4-80 French place name 1-230 2-124

B. Properties Involving Some Letters in a Word

1. Letters in Specified Position in Word
All beginnings/endings (TouchH): long words 3-32 4-45 4-195 5-15, short words 3-33 5-40 5-81
Heads 'n tails words (UNDERgroUNDER): 1-249 2-186 3-48 3-107 4-170, each central letter 4-132 5-6 5-24, center also a word 5-181
Doubled beginnings/endings (AAlII): 1-17
All terminal bigrams 3-152 3-211

2. Isolated Letters, Any Position in Word
Several rare letters (JuKeboX): 1-69 1-249 3-180 5-162 5-206
Each vowel once (hOUsEmAId): all vowel orders 2-208 3-18, uoiea 1-25, yuoiea 1-206, each vowel twice (thrice) 3-18 3-147 5-17
High proportion of vowels 1-138 2-136 3-213, low proportion (abstemious words) 1-138 2-133 5-26 5-51 5-108 5-174
Shortest words, three letters same 4-135 5-7, four same 2-53 3-147 3-181 5-7 5-23, five same 3-252 4-144 5-7, most letters of one kind 5-23, most different letters 5-22

3. Isolated Letter Groups, Any Position in Word
Bigrams (bUXom): sample dictionary 2-215 3-19, xx 1-198 5-14
Trigrams (reGALe): sample dictionary 2-166 2-245 3-17 3-253 three letters same 2-52 2-203 3-17 5-7, abc-xyz 5-22, gal 4-242, all-vowel trigrams 4-59 4-81 4-124
Multigrams: 4-52 4-116 5-23, internal palindromes 1-12 5-23
Repeated bigrams, trigrams (INsINuatINg): 3-176 5-25, successive doubled letters (bOOKKEEper) 1-152 1-218 4-180
Alternating monotonies (sYzYgY): 1-31 4-77 5-23

4. All 26 Letters Used (Pangrams)
Sentences using all letters at least once 1-101 1-116, at least twice 4-181 4-209, word sets using all letters at least once

4-239 5-52 5-107 5-181
Naturally-occurring near-pangrams 5-160 5-179, window size needed for 50-50 pangram chance 5-160 5-205

5. Symbols, Arabic and Roman Numerals, Internal Capitals
Special symbols needed 4-152 4-208 5-29
Arabic and Roman numerals 5-24 5-57 5-80
Internal capitals in words 5-72 5-204
Superfluous, expendable typewriter symbols 5-115
Most accents (French) 1-25, most hyphens 3-235 5-144, most dotted letters 1-169

6. Omission of Letters from Words (Lipograms)
Test for existence 2-138, examples 2-30 2-139 3-18
Construction of a 9-symbol alphabet (plus space) 5-214

C. Properties of Letters in Groups of Words

1. All Words Same Length, Transposition Allowed
Mutually non-overlapping word sets (Jotto): 1-21 2-58 5-81
Partially overlapping sets of isograms: each m-word subset has one common letter (OGLED-GRAPE-POISE-GRIDS-SOLAR-PLAID) 1-214 5-67 5-81, each pair of letters appears in n words (SET-SEA-SAT-EAT) 1-212 4-69 incomplete 4-69, each pair of words has one common letter and each letter-pair appears in only one word (ADO-ORE-BAR-BOY-YEA-BED-DRY) 1-214 5-78 5-143, variable degree of overlap in word set 2-59
Partially overlapping sets of near-isograms (BIBLE-ATLAS-GOOSE-THIGH): 1-216 2-185 5-8
Dice Words (ERA-RAP-IRE-RIP-EAT-PAT-TIE-TIP): 3-29
Single-letter substitutions (seXual-sQueal): 2-59 4-68 4-71 4-115 4-172 4-248 5-105

2. All Words Same Length, No Transposition Allowed
No word-pair has same letter in same position (Crash): 1-216 5-107 5-174
Crash scores: word lists crashing all but one word in the dictionary 5-50 crashing all words 4-115 5-50 5-104
Word ladders (LESS-LOSS-LOSE-LORE-MORE): specific ladders 1-26 1-239, French ladders 2-195, isolanos - no ladder connection possible (SYZYGY) 2-62 3-108 4-171, onalosis - ladder connection possible anywhere (BEAR: TEAR-BOAR-BEER-BEAT) 3-108 4-171 5-53
Garble groups (BAT-BIT-BUT-BAG-BIG-BUG): 1-156 1-165 3-144 3-211 4-15, alphabetic triliterals 5-120
Single-letter substitutions (valUe-valVe): 1-151 2-70

3. Word Steps
Word chains or rings (AraBloCoDuE..): 3-32 3-211 3-228
Word Stairs (WAS-ASH-SHE-HER-ERA..): 1-154 3-49 4-72
Word progressions -stairs plus transposition (NICE-COIN-LION-LOAN..): 1-215

4. Group Transpositions
   Word squares: 4x4, all letters different 3-173, 4x4 5x5 fewest different letters 5-104 5-172, 5x5 square of 24 different letters transposable to words 2-58, 6x6 contest 5-207
   Word cubes and hypercubes: 4-147 4-202 4-208
   Specialized 5x5 word squares: 2-221
   Pig-Latin squares: 5-48 5-172
   Pentomino word puzzles: 2-112 2-153 2-157 3-19 3-94 3-147 4-75

5. Insertion and Deletion of Letters
   Successive curtailment (WARNS, WARN, WAR) 4-71
   Successive transdeletion (A, AT, TEA, RATE, STARE): 4-73, transdeletion index 4-109
   Insertion, deletion puzzles: add letter to word, form another 4-211 5-225, guess word after commonest letter deleted 2-145
   Hospitable (RAP: TRAP, REAP, RASP, RAPT) and charitable (SEAT: SEA, SET, EAT) words 4-171 5-53 5-109, hostile and stingy words 5-54 5-109
   Charades (words inside words): complete filling (IN-DISC-RIM-I-NATION) 3-114 3-118 4-105 4-116 2-205, partial filling (Greek letters) 4-169, word deletion sentences 2-73 2-81

D. Properties Based on Letter Order in the Alphabet

1. Relative Alphabetic Position
   Words with alphabet-adjacent letters (FuDGE): 4-10 4-144 5-22
   Words with alphabet-adjacent letters in order (ABsConD): 4-207 5-22
   Words from first half of alphabet: 1-35 5-26
   Last word in dictionary beginning with specified letter: 5-186
   Word shifts combined with transposition (MUSIC-UCAQK): 2-25

2. Letter Scoring (A = 1, B = 2, . .)
   Numerical tautonyms (BULK 2 + 21 = 12 + 11): 3-10 3-151 3-244 4-82 4-185, multiplicative 3-13
   Difference words (ICE 9-3-5 from FORM 6-15-18-13): 3-231 4-139 4-209
   Words with invariant letters (position in word = score): terminal letter only (fudgE) 4-96, many invariant letters 5-133 5-206, alphabetical invariance (iNOPeRaTiVe) 5-140
   Poker words: 4-115 5-105 5-173
   Subtranspositions (TO 20x15 = BEEF 2x5x5x6): 2-28
   Centrally balanced beam words (AXLE 1x3 + 24x1 = 12x1 + 5x3): 2-37
   Words with low (high) average score: 5-226

E. Properties Using Words (not Letters) as Basic Units

   Transpositions: two (three) poems using same stockpile of words 2-18 2-85 3-140 3-209 4-83 4-143, analysis of similarity of two such poems 3-86

Palindromes: 2-125
Word cycle rings (SAW HORSE, HORSE POWER, POWER SAW): 1-118 3-38 3-41 3-84
Lexemes (multi-word phrases): with isolated letters 3-233 4-52 4-100 5-23, longest lexeme 4-116, internal (hidden) words (OVO in AB OVO) 5-27 5-185
Paragraph characterized by word-lengths: 4-12 4-81, pi mnemonic 1-146
Pangrammatic paragraph (all words different): 5-39
Word squares with words in cells: 1-225
Acronyms: 3-235

THE SOUND OF WORDS

1. Syllabification
Longest one-syllable word 2-180 3-78 3-109 3-173 5-27, two-syllable word 1-88 3-79 3-148 4-117 5-26
Words with high syllables/letters ratio 2-180 3-45 3-77 3-148 4-117 5-27
Add letters, reduce number of syllables 3-49

2. Homonyms (RIGHT, WRITE, RITE, WRIGHT)
Examples 2-184, three different initial letters, none sounded 4-8, two homonyms with no common letters 1-144, homonyms with transpositions also homonyms 2-120
Rhymes (terminal homonyms): one-syllable words rhyming with A 1-22 1-224, V-W rhymes (VERILY-WARILY) 5-122 5-166, sight rhymes 1-243, oh-rhyme terminated with 15 different letters 5-235
Homonymic sentence-pairs 2-143, French pairs 2-142 3-101 English-foreign pairs 3-232
Sentences of homonyms (I EYE AYE-AYE) 5-131 5-204, stutterances (GOD, FREE GODFREY) 5-146

3. Heteronyms (Polish, polish)
Examples 1-107 1-151 2-150 4-9, literary format 1-219
Sight rhymes (terminal heteronyms): 1-243, -OUGH variations 4-118
Heteronymic sentence-pairs 2-7 2-142, Foster compounds 2-205

4. Writing-Speaking Inconsistencies
Writeable but not speakable, and vice versa 3-48
Letter sounded in word but not written 3-168, letter written in word but not sounded 3-168
Change one letter, strongly alter pronunciation (CHEMISE-CHEMIST) 3-49
Sentences difficult to pronounce 1-144, hardest word to pronounce 4-8, no pronunciation given 3-80 4-8, strange pronunciations 5-150, wordy definition of a pronunciation 3-235

5. Spelling
Spelling illogic (GHOTI = FISH) 2-119, simplified spelling movement 4-40, "S as in sea" ambiguity 5-171, W spelled like U

ambiguity 3-206, exceptions to spelling rules 2-90
Spelling quizzes 1-15 1-84 1-152

THE MEANING OF WORDS

A. The Structure of Language

1. Singulars and Plurals
One plural, many singulars 2-182 3-47 3-199 5-28, one singular, many plurals 2-182 3-47 3-201 3-211
Words simultaneously singular and plural 3-198
Plurals ending in every letter of alphabet 3-169 3-198
Add letters at end to form plural 3-195 4-19 5-28, inside word 3-196 4-80, at beginning 3-197, subtract letters 4-19 3-197
Words existing only in singular or in plural form 3-196 4-80
Plurals unlike singulars 3-195 3-211 4-23
False plurals 4-176, collective nouns 5-230
Plurals spelled same, pronounced differently 4-24
Formation of plurals by "singular" rules 4-19
Special plurals: lexemes 4-20, -MAN words 4-22, container-ful plurals 4-21

2. Parts of Speech, Tenses, Conjugations
Most consecutive verbs 3-66, different verbs but same noun form 2-182, past tenses 5-28
Most prepositions ending sentence 1-172 3-83
Adjectives following their nouns 3-109 4-52 4-117, adjectives not changed to adverb by adding -LY 3-110, adjectives related to the major planets 4-173
Definite article: 5-208, 5-233
"If I was the President..." 2-186 3-48

3. Subjective Meanings (Connotations) of Words
Word association test 3-238, sandwich fillings 3-43, crossword puzzle 2-68
Comforting words 3-60, immoral words starting with L 1-38, beautiful words 2-69 4-52 5-16 5-111, ugly words 2-69, beautiful words, ugly context 5-144, dangerous word 5-153, sad words 3-92, euphemisms for jobs 1-105, pejorative words 5-76

4. Synonyms and Antonyms
Words with essentially same meaning 2-123 3-175 3-233
Same spellings, two opposite meanings 2-118 2-179
Redundant words (first half, last half synonyms) 2-125
Synonym-transpositions 4-170 5-173 3-233, synonym-palindromes (different languages) 4-241
Internal synonyms (caLumnIEs) 1-245

B. Problems in Communication

1. Language Change and Specialization
Problems of change 3-102 3-170 4-174 4-238, shifted meanings

1-198 3-85, obsolete meanings 4-25 4-172 5-29, pedantic meanings 5-231
Word origins: Indian words 3-20, eponyms 3-95, words with two distinct origins 2-122 2-146, Jim and the Bible 1-40, citations in Webster's dictionary 3-249
Double-duty words 4-112 5-168, words with specialized meanings 3-50 3-81 4-172 5-51, obscure meanings 1-83
Meaning quizzes 1-200 2-123 2-181 2-184 3-172 3-175

2. Coinages of Words
Degrees of word admissibility 4-120
Long palindromes 3-5, long transpositions 3-136, multiple isograms 5-102, strong & weak verbs 5-98, successive doubled letters 4-180 1-120, pyramid words 5-236
New words in print 1-71 5-95 5-143 5-204
Artificial language 4-241, Pig Latin 3-44 3-175
Help Fill Word Gap 2-48, un-negatives 2-119
Product names 1-146 1-173 1-220 1-80 2-74 5-14
Specific coinages 1-86 2-3 (logology) 2-52 2-55 2-57 3-49 3-81 3-180 3-236 3-222 4-11 4-14 4-144 4-171 4-207 5-69

3. Translation
Problems with poetry 4-46, specifics 4-174 4-218 5-15, extra-terrestrial 1-202, birds 2-79, bees 4-53
Foreign language "looks" English 2-134 4-241 5-179, "sounds" English 3-232

4. Ambiguities and Inconsistencies
Irish bulls 3-104, contradictory proverb-pairs 4-210 4-137 legal inconsistencies 5-228
Newspaper, magazine, song boners 3-45 3-111 3-170 3-232 3-234 4-50 4-237, Mystery news 3-145, blunders 2-163
Self-descriptive words (autologs) 2-182 4-240 5-171, "up to and more" 4-237, exception to every rule 5-46
Linguistic illusions 5-11 verbal illusions 5-81

ENTERTAINMENTS

1. Poetry
Relation of poetry to word-play 2-4
Transpositions: lines letter-transposals of each other 2-13 3-107 4-172, two poems using same set of letters in corresponding lines 2-16, two (three) poems using same stockpile of words 2-18 2-85 3-140 3-209 4-83 4-143
Palindromes: how to compose 5-55 5-220, line-by-line in poem 2-20 4-250 5-80 5-221, whole poem 1-17 1-153 2-7 2-20 2-135 4-249 5-223, using words as units 4-249, poems explaining a palindrome 2-32 2-49 2-55
Acrostics: 1-53 1-112 1-180 1-199 2-83 2-140 3-203 4-51 5-195, lines beginning JAN, FEB .. 2-31, acro-double (triple) 2-159 3-203 4-251 5-196, anachuttles 2-82 3-204 5-116
Lipograms 2-30 3-18 2-138
Change line-lengths, change mood of poem 5-170

Rhyming oddities: spoonerhyme 3-42 3-173 5-91, backward rhymes 3-171, sight rhymes 1-243, limericks 5-175 3-42
Word chain poem 4-62, contrapositive poem 4-236, four-letter word poem 3-42
Puzzles in rhyme: rebuses 1-70, Richmond Riddler 3-109 3-174
Poems on logological subjects: Web III 3-237, Oxford English 5-53, puzzlers 1-32, beautiful words 5-112 5-144
Miscellany 2-80 1-43 2-181 4-118 4-252 4-240 5-138

2. Forms and Crosswords
Forms: diamond 1-88, hollow diamond 4-91, Presidents and Vice-Presidents 5-182, state names and nicknames 4-232
Crosswords: origin of puzzle 2-50, reader query 5-143
Small crosswords: 2-122 3-103 2-187 3-169 1-178 1-242 4-50 4-117 4-173
Specific crosswords: charade 1-94 3-177 4-177, Azuriel 1-227, obscure clues 1-5 1-67, vowels 2-136, consonants 2-133, palindromes 4-102, reversals 4-203, word association 2-68, Bible double-crostic 1-217, clueless 5-151, reconstructible 3-56, Bible clues 1-131, amorphous amoeba 1-160, "8800" 1-195, pangrammatic 3-53 3-83
Related pastimes: Pig-Latin squares 5-48 5-172, spiraling alphabets 2-67, word chess 1-201 1-236 2-165 3-40 3-82 3-148 French chess 2-197, word maze tracing 1-110 1-181 1-244 2-116 2-131 2-132

3. Cryptography
General discussion 1-99, how to solve 5-4 humorous 1-102
Minicrypts: 2-123 2-185 2-186 3-48 3-172 3-236 5-16 5-54 5-114 5-171 5-179
Ambiguous ciphers: 1-101 2-49 3-241 4-55 4-119
Penney's cryptographic puzzles: 3-14 4-14 5-119
Three-way crypts: 5-112 5-179 5-181
Encoding abbreviations 2-121, sandwich crypt 4-239, unsolved crypt 1-224, dictionary codes 5-180
Rebuses 3-103 4-245 5-52 5-88 5-115 5-201, Loony logos 4-78 4-144 5-9, identify the sequence 4-173

4. Games
Crash: 4-31 4-98 4-156 4-221 5-32 5-94 5-154 5-215
descriptive 2-185 3-44 4-50 5-51
wild crash and uncrash 5-108 5-215
Scrabble: 4-32 4-97 4-155 4-220 5-34 5-46 5-93 5-154 5-216
highest scores 5-99 5-218
Sinko 3-106 5-33 5-93 5-155
Toiler vs. Spoiler 5-113 5-175, The Oilers 5-113 5-176
Ghost 2-121 4-212
The Last Word 3-105 4-214
Jotto 1-21 5-107
Alphabet sports 3-183, Transposition 4-88, license plate game 2-107, word poker 4-113, predict your middle initial 5-231
Requisite 5-206

5. Fiction and Humor
Linguistics: Periodic Table of Elements 1-134, Superl 4-182, Ten Logotopian Lingos 3-215 4-34
Acrostics: The Case of the Acro-Double 5-195
Transpositions & Palindromes: Baleful Tale of Hale & Gale 3-70, Logology Class in Transposal 3-136
Puns: 3-172 3-176 5-113 5-169, punetic alphabet 1-183 5-111, Jesus the Punster 3-163, Tom Swifties 2-184 Charade Swifties 5-18, Mrs. Malaprop the Adwoman 5-45, In-Famous Classics 4-246, Specialty Definitions 3-30
What's the Question: 3-104 3-238 4-52 4-116 5-105
Puzzle-Solving: Mexican Memory 4-145, Lo the Poor Solver 1-47
Lewis Carroll parodies: Helico-Spherical Cocktail Party 1-143, Alice in Puzzleland 1-18, Lewis Carroll Society 2-199
Jargon: Assination of English 1-136, Old Wine in New Bottles 4-16 (also 1-7), A Tight Squeeze 3-230
Humorous Collections: prostitutes 1-205 2-124, legal 3-45, politics 5-51, Yellow Pages 5-171, ship names 3-102, occupational avoidance 5-156, alphabet soup 4-158, pseudo-opposites 3-43 3-174, abridged Broadway songs 5-174, point of view 2-183, epithets (hinky-pinkies) 4-49 4-116 3-19
Miscellany: Puzzle Shop of Uncle Rebus 2-212, Lawless Lords of Logomycin 2-33 2-107, Attention Peditastelli 3-166, Onomancy 2-90, Sobriquets of Ultrachess 2-231

6. Book Reviews, Dictionary Errors or Inconsistencies
Dictionaries: Webster's Third 1-246, Random House Unabridged 1-58, Compact Oxford English 4-210 5-206
Other Reference Words: A List of Words Containing No Repeated Letters 5-79, A List of Pattern Words of Lengths Two Through Nine 5-3, A List of Pattern Words of Lengths Ten Through Twelve 5-205 5-233, Sisson's Word and Expression Locator 1-56, Isms, a Dictionary of Words Ending in -Ism, -Ology and -Phobia 5-145, Crossword Puzzle Dictionary 1-116, Normal and Reverse English Word List 5-80, Webster's Dictionary of Proper Names 5-234
Names & Numbers: Universal Nomenclature for Numbers 1-185, Treasury of Name Lore 1-184, English House Names 5-79, Names on the Land 3-209, American Place-Names 3-209
Games & Puzzles: Jumble - That Scrambled Word Game 1-57, 300 Best Word Puzzles 1-183, From Bed to Verse 1-118, The Nation's Best Puzzles 4-243, Games for Insomniacs 1-115, The Game of Words 5-144, Thank You for the Giant Sea Tortoise 5-16 5-178
Poetry, Humor, Satire: Comic Alphabets 1-182, Brian Wildsmith's Wild Animals 1-182, The Sot-Weed Factor 5-178, English As She Is Spoke 3-239, The Fantastic Acros 4-14, The Best of Bloopers 5-233
Miscellany: Personalities of Language 4-242
Dictionary errors and inconsistencies: 1-139 1-235 2-30 2-120 3-18 3-85 3-122 4-8 4-26 4-117 4-216 5-16 5-27 5-29 5-71 5-81 5-134 5-145

7. Place Names, Personal Names

Personal names: infer given name and surname from initials 1-240 3-19 3-109, given names that are dictionary words 2-89 3-235, John in other languages 3-239, surnames that have become dictionary words 3-95, color surnames 5-199, odd sobriquets 2-237, transpose state name into personal name 3-39, odd famous middle names 1-111, famous first initials 4-38, longest surname in phone book 3-108, long middle name 2-55, long Bible name 2-47, palindromic premiers 3-176 palindromic deity 1-128

State names: state and capital charade sentences 3-54 3-84 3-149, state abbreviations dictionary words 3-116, state name charade 3-118, linked chain of states and towns 3-220 4-15, anagrams of state names 3-222 4-14 5-15, town-country-state common name? 4-163, state name etymology 5-232

Town names: English town isograms 3-15, names with logological properties 3-131, oddities 3-135 3-211, presidents in town names 3-132 3-210, chemical elements in town names 3-132 3-209, astronomy in town names 3-133, Greek letters in town names 3-209, letter homophones 4-209, numbers 4-13, town-pairs matching given name and surname of famous person 4-13

Miscellaneous: English place name pronunciation 4-117 5-36, order of countries named in wars 3-240, first place name in alphabet 3-181, names for "street" 1-230 3-81 3-91, longest French place name 1-230 2-124, letters not in common in (country, capital) puzzle 4-244, old names of countries 2-180 1-104 of cities 1-107, Connecticut lake palindrome 1-128, colleges named by town location 5-232

8. Mathematics and Technology

Autological words: described by number of letters 3-46 3-175 2-179, by morse code symbols 1-207, by number of pen strokes 3-47 4-80, convergence in English 5-80

"To The Fair Fluke" series 4-39 4-82, alphametics for 10-digit squares 3-123, alphametic puzzles 5-47, square, prime, Fibonacci words 5-51 5-108, a literal addition 3-169, integers arranged alphabetically 4-115, charade sentence of integers 1-109, pi mnemonic 1-146

Technology: telephone dial words 3-171, typewriter order of alphabet 1-25 3-176 4-118, chemical substitutes (Fey-Irony) 4-51 4-116 4-169

9. Collections of Words

Musical groups 1-8 3-207 3-212, hep-vocab 3-248, mathematical curves 1-226, large number nomenclature 1-28 1-89, shapes 3-43, geometric solids 1-109, asteroids 4-164, medical 1-170 4-84 4-172 3-45 5-114, occupations 5-96, short order cook language 3-23, nouns of collection 5-50, groups of size twelve 2-186 3-47, French menu 1-239, foreign borrowings 5-30, Amerind names 3-229, curious monikers 5-190, old names for chemical elements 4-224, animal adjectives 2-120, necking 1-22, generalissimos 1-98