

Dudeney's columns in The Weekly Dispatch [with occasional notes of my own]

P100 means puzzle number 100
S100 means solution number 100
* means a miscellaneous algebra problem

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1896.04.19
P1 The box of sweets: *
P2 The cricket puzzle: (need to know that sport)
P3 A word square: 5x5 with rhymed clues
P4 The coinage puzzle: 3x3 magic square filled with coins

1896.04.26
P5 Subtraction: mixed radix miles/furlongs/poles/yards/feet/inches
P6 English towns: anagrams
P7 Charade: like nigh-tin-gale / night-in-gale
P8 The twelve hands puzzle: cyclic 11111111111->111111011211->101111011221->101011021221->201010021001->201000022221->200000022222 (always cross two)

1896.05.03
P9 The buried fishes: substrings
P10 Numbered charade: 1-dimensional crossword puzzle
P11 Missing words: all anagrams of each other (STEAM TAMES etc)
P12 The "Dispatch" puzzle: 8-puzzle CAT/HID/PS -> DIS/PAT/CH in fewest moves
S1, S2, S3, S4

1896.05.10
P13 Transformations: word ladders CAT->DOG, BOY->MAN, WOOD->COAL, LION->LAMB, HATE->LOVE, all possible in three steps; WARM->COLD, FISH->MEAT, MORE->LESS, FIRE->COLD, RIDE->WALK all possible in four steps
P14 Charade:
P15 A puzzling account: * from "Slocum-in-Mud"
P16 The diagonal puzzle: bishop's tour, not twice thru a square in same dir
S5, S6, S7, S8

1896.05.17
P17 A mystery: 13 people in 12 rooms
P18 Word square: 4x4
P19 Anagrams: I HIRE PARSONS <-> PARISHIONERS
P20 The peculiar prison: rook tour with even/odd twist
S9, S10, S11
S12 in 28 moves: DISDITASDITASDIPHC DIPHPAT

1896.05.24
P21 The seven cows: a trick question
P22 Beheadings: DALE->ALE, etc
P23 Missing words: all anagrams of STOP
P24 A war drama: 3x3 magic word square
S13, S14, S15, S16(with error corrected next week)

1896.05.31
P25 Addition: choose six of fifteen given numbers, obtain the sum 1111
P26 Palindromic words: DEIFIED etc
P27 Buried cities: like P9
P28 Cycling puzzle: least common multiple
S17, S18, S19, S20

1896.06.07
P29 A word square: 5x5
P30 The nines puzzle: four nines yield 100
P31 Charade:
P32 The domino puzzle: 28 dominoes plus 01,02,12,11 -> magic square 8x8
S21, S22, S23, S24 [but S24 not visible in my copy]

1896.06.14
P33 Anagram: Henry Wadsworth Longfellow
P34 The mouse and the corn: *
P35 Numbered charade:
P36 The four vases puzzle: * English coins
S25, S26, S27, S28

1896.06.21
P37 Beheadings:
P38 Word square: 5x5
P39 The mother and daughter: *
P40 The lost poet: queen tour with turning points spelling a name
S29, S30, S31, S32
"'Sphinx' is at present abroad"

1896.06.28
P41 How many eggs-actly?: *
P42 Charade:
P43 Missing words:
P44 The clever snail: queen tour with fewest turnings, f3 to c6
S33, S34, S35, S36

1896.07.05
P45 Anagrams: NINE THUMPS <-> PUNISHMENT
P46 Buried Christian names:

P47 Word square: 6x6
P48 Five planets puzzle: five queens move to covering position
S37, S38, S39, S40

1896.07.12
P49 Transformations: HARD->EASY in five; MAN->APE in six; BLACK->WHITE in eight
P50 Charade:
P51 Missing words:
P52 Postage stamp puzzle: magic square 3x3
S41, S42, S43
S44 in 14 turnings (15 moves): f3 f4 d2 g2 g6 b1 h1 h8 a1 a8 g8 b3 b7 e7 c5 c6

1896.07.19
P53 An eggs-traordinary question: *
P54 Word square: 5x5
P55 The men, some nuts, and a monkey: *
P56 The Greek cross puzzle: dissect a cross into a square
S45, S46, S47
S48 shows a 5-queen covering all on a diagonal

1896.07.26
P57 Anagrams:
P58 A short cut: for 1+2+...+50
P59 Palindromes: in a short story
P60 The frogs who would a-woooing go: 10 points in 5 lines of 4
S49 with also BLACK-BLANK-BLINK-CLINK-CHINK-CHINE-WHINE-WHITE in seven
S50, S51, S52

1896.08.02
P61 Charade:
P62 The Junior's shopping: *
P63 Word square: 6x6
P64 Sphinx's English tour: Hamiltonian tour thru 20 vertices
S53, S54, S55, S56

1896.08.09
P65 Missing words:
P66 The menagerie: *
P67 Numerical charade: 1x19
P68 The tower of Bramah: (aka Hanoi)
S57, S58, S59, S60

1896.08.16
P69 More eggs!: trick question
P70 An attack on "Sphinx": beheading
P71 A puzzling legacy: *
P72 The plantation puzzle: six in 6x6 with even parity in rows and cols
S61, S62, S63, S64

1896.08.23
P73 The hogshead of sherry:
P74 Charade:
P75 Word square: 5x5
P76 A block for execution: cut 32x16x15 into max number of 10x6x5 pieces
S65, S66, S67, S68

1896.08.30
P77 Elementary arithmetic: trick question
P78 Charade:
P79 The vocalists' fees: *
P80 Frogs and flower-pots puzzle: two solutions to 8 queens with five in common
S69, S70, S71, S72

1896.09.06
P81 A Sphinxian mystery:
P82 Word square: 5x5
P83 A bad transaction: *
P84 The map puzzle: coloring with fewest colors, plus a trick
S73, S74, S75
S76 states that 25 blocks cannot be achieved

1896.09.13
P85 A puzzling fraction: *
P86 Charade:
P87 A queer relationship: trick of words
P88 The cardboard puzzle: cut out a square avoiding holes
S77, S78, S79, S80

1896.09.20
P89 Beheading:
P90 A puzzle in reversals: mixed-radix subtraction from the left-right reverse
P91 Missing words:
P92 The frogs and the brook: AAAAA0BBBBB to 00000000000 in fewest moves;
each move is by one or two, to a vacant cell
S81, S82, S83, S84

1896.09.27
P93 Slightly involved: relationships
P94 The picnic puzzle: *
P95 Word square: 5x5
P96 Sphinx's portrait: 16 triangles to assemble into a square
S85, S86, S87, S88

1896.10.04
P97 The hundred nuts: *
P98 Charade:
P99 A remarkable window: trick question
P100 The hundred barrels problem: 10 queens
S89, S90, S91
S92 in 50 moves

1896.10.11
P101 To be solved mentally: *
P102 Charade:
P103 A pedigree puzzle: relationships
P104: The perplexed builder: maximum Eulerian subpath; 20 odd vertices present
S93, S94, S95, S96

1896.10.18
P105 A queer transaction: *
P106 Word square: 6x6
P107 A puzzling distribution: trick
P108 The hat puzzle: ABABABAB00 -> AAAAABBBB or BBBBAAAA with 0s,
always moving an adjacent pair of hats [In Strand 36(08)696 he
credits this to P. G. Tait in 1884.]
S97, S98, S99
S100 claims 724 different 10-queen solutions, 92 isomorphism classes

1896.10.25
P109 The orchard problem: *
P110 A seven-letter word square: 7x7
P111 The curate's family: *
P112 The Tudor constellation: 5-queen covers in shape of a T
S101, S102, S103, S104

1896.11.01
P113 Charade:
P114 The Junior's inventions: Chinese remainders
P115 The oval problem: draw an ellipse with two compasses
P116 The three purses puzzle: partition the multiset {8x0,8x1,8x2} into
three multisets {1,1,2,2,2,0,0,0} or {1,1,1,2,2,0,0}
S105, S106, S107
S108 in five moves using a "simple rule": A00BABABABBA -> AABAB00ABBA
-> AAB00BBAABBA -> AABBBBBAA00A -> 00BBBBBAAAAA

1896.11.08
P117 Beheadings:
P118 A loan affair: *
P119 Charade:
P120 The guinea puzzle: 3x3 magic square
S109 (will be corrected next week)
S110 the 7x7 word square has two rare words
S111, S112

1896.11.15
P121 Charade:
P122 A charitable bequest: (will be clarified next week)
P123 Another oval problem: draw an ellipse with nails and string
P124 Sphinx Junior's latest: tower of Hanoi generalized to four pegs (10 discs)
S113, S114, S115, S116

1896.11.22
P125 Curtailment:
P126 The grocer and draper: *
P127 The gas-pipe puzzle: bishop's tour on 6x6, allow re-entry but no crossing
P128 The postage-stamps problem: Chinese remainders
P122 restated --- partitions of 110 into 3s and 5s
S117, S118, S119, S120

1896.11.29
P129, P130, P131, P132, P133, P134 a series of puzzles with lucifer matches
P135 Word square: 5x5
S121, S122, S123
S124 in 49 moves

1896.12.06
P136, P137, P138, P139 more match puzzles
S125
S126 (will be corrected later)
S127, S128

1896.12.13 special Christmas supplement, page 6
PC1 The twelve mince pies: 12 points in six lines, 4 per line, in two ways
PC2 Hearts and coronets: word scrambled = itself, so it has the pattern abcdbc
PC3 Mathematical heads: *
PC4 Carving the Scotch shortbread: 4x4 minus 2x2 corner tiled with L trominoes

1896.12.20
discussion of magic squares
P140 Eight jolly gaol-birds: 8-puzzle, from 123/405/678 to magic square
P141 All on the square: nested odd-order magic squares
S129, S130, S131, S132, S133, S134, S135

1896.12.27
discussion of puzzles with money
P142 a question of change: [Hoffmann's P4.107]

P143 A problem in farthings: L12 12s 8d = 12128 farthings
S136, S137, S138, S139

1897.01.03
P144 A new year's problem: Chinese remainder *
P145 The arful gaol-birds: do P140 with the fewest moves
S140, S141

1897.01.10
P146 An addition puzzle: make 10 from {1,2,3,4,5,6,7,8,9}
P147 The Junior and the barrel: good way to test if a barrel is half full
S142, S143, SC1, SC2, SC3, SC4 (the four Christmas puzzles)

1897.01.17
P148 A puzzle in apples: trick question
P149 The shamrock puzzle: four simultaneous 8-queens sols on mutilated board
S144
S145 either 5325764157641648327 or 4124167158156756427; he states that there
are 8 magic squares, only 4 achievable, only 2 achievable in 19 moves
[AM403 is an analogous problem but using the standard 15-puzzle]

1897.01.24
P150 A study in chocolate: pack 800 slabs 25x22x2 into hxhxd box with at
most 12 slabs on edge
P151 A puzzling division: *
S146 notes that $4 \frac{9}{18} + 5 \frac{16}{72} = 10$
S147

1897.01.31
P152 The farmer's daughters: an improvement on P148 but still tricky
P153 Apples and oranges puzzle: Josephus clone
S148 will be withheld; see S152
S149 notes that the filled cells make a nice symmetrical arrangement:
0x0xx0x0
x00000x
00xxxx00
x0x00x0x
x0x00x0x
00xxxx00
x00000x
0x0xx0x0

1897.02.07
P154 The arithmetical cabby: Chinese remainders
P155 The thistle puzzle: four 8-queens (cf P149); use no corners, all 4 centers
S150 box is 200x200x22; needs 8 on edge
S151

1897.02.14
P156 Nines and tens puzzle: another Josephus clone
P157 A pile-driving puzzle: *
S152, S153

1897.02.21
P158 The rose puzzle: six 8-queens solutions (cf P155)
P159 An evasive answer: *
P160 The printer's problem: compute the multiset union
{J,a,n,u,a,r,y} \cup ... \cup {D,e,c,e,m,b,e,r}

S154
S155 the pattern is symmetrical again: 00xxxx00
0xx00xx0
xx0000xx
x00xx00x
x00xx00x
xx0000xx
0xx00xx0
00xxxx00

1897.02.28
P161 The Spanish miser's ruse: rook tour b1 to e3 with maximum turns
S156
S157 (will be corrected next week)

1897.03.07
P162 The orchard problem: 10 points in 8x8 minus center 2x2, 5 lines of 4
S158, S159, S160
comment to Mr Lunn, a maximal independent set isn't necessary maximum

1897.03.14
S161
P163 The Persian tile puzzle: 5-queen cover avoiding the max rectangular area

1897.03.21
S162 has a pretty solution [how many ways are there with 10 pts, 5 lines of 4?]
P164 The wily burglars: transporting with baskets, nice twist on river crossing
(is identical to Hoffmann's earlier P4.28)

1897.03.28
S163 with 5x7 area open (two solutions)
P165 The primrose puzzle: 8-letter word with pattern abcdefb
(similar to "hearts and coronets", unnumbered puzzle of 1896.12.13)

1897.04.04

S164 with a great comment by Bashin Billy
P166 The harp puzzle: four 8-queens solutions avoiding 6 in corner (cf P158)

1897.04.11
S165 "ecstatic medicine cheereth derisive feminine regicide ..."
P167 The magic strips: 7x7 strips to be dissected into latin square with diags

1897.04.18
S166 with pattern 0xxxx000 NB: no queens on the diagonals
 x0x0xx00
 xx00x0x0
 x0000xxx
 xxx0000x
 0x0x00xx
 00xx0x0x
 000xxxx0

P168 The pedestal puzzle: volume of figure (computed via physics, not math)

1897.04.25
S167 turns out to be well known (to me anyway) from GF(7) ... pandiagonal
P169 The dissected square: 4x4 magic square cut into four pieces, reassembled
comment on P164: 'man down boy up' not allowed, as man is much heavier

1897.05.02
S168
P170 Gidsby's geese: *

1897.05.09
S169
P171 The bird, the bee, and the butterfly: connecting 3 in with 3 out

1897.05.16
S170
P172 The matches and coins puzzle: dissect 4x4 into 3 parts
 with certain edge constraints

1897.05.23
S171
P173 The torn number: * $(x+y)^2=100x+y$

1897.05.30
S172
P174 The temple of the ten genii: put together a 10-queens that was quartered

1897.06.06
S173
P175 A Graeco-Turkish problem: river crossing of 358 men

1897.06.13
S174
P176 The king and the castles: 10 points, 5 lines of 4, max pts totally inside

1897.06.20
S175
P177 The fleurs-de-lys puzzle: dissect one square into two, avoid certain pts

1897.06.27
S176 two are totally enclosed
P178 The six-and-eight puzzle: 8 queens embedded in 10 queens with pcs of 6x6

1897.07.04
P177 is repeated and amplified, since nobody solved it
P179 The sixteen stars: 16 points, max lines with 4 per line

1897.07.11
S178 says only the symmetrical 8-queen has an 8-diag and 7-diag both vacant
P180 Out for a holiday: three men share two bags equally in 4+2+1 segments

1897.07.18
S177
S179 including {9,10,11,12,13,14,15}-line solutions
P181 A multiplying magic square: 3x3

1897.07.25
S180
P182 The flower bed puzzle: how many ways to spell MADAM in given graph

1897.08.01
S181
P183 The royal portrait: Queen Victoria dissected and ...

1897.08.08
S182
P184 Such a getting upstairs: Chinese remainder with twist

1897.08.15
S183
P185 The miser's money bags: magic square 3x3

1897.08.22
S184
P186 Cherries and plums: 10 of each, five lines of 4, in 8x8 - 3x3

1897.08.29
S185 (which has 24190 solutions)
P187 The figure block puzzle: select 5 independent blocks having a given sum

1897.09.05
S186
P188 The miraculous chessboard: $64=65$ ascribed to French publication of 1700s

1897.09.12
S187
P189 The dispatch diamond: path counting (cf P182)

1897.09.19
S188
P190 The twelve aces: magic cross (12 vertices, seven groups of four)

1897.09.26 [now by Henry E Dudeney ("Sphinx"); previously was by "Sphinx"]
S189
P191 The junior clerks' puzzle: * (salary increases)

1897.10.03
S190 (he says there are considerably more than 13824 solutions)
P192 The incomprehensible puzzle: find a permutation of 16 cards

1897.10.10
S191 (but it is corrected next week)
P193 The Mudville railway muddle: two trains (engine + 40 cars) passing each other; there's room for only 20 cars in each of two tracks

1897.10.17
S192
P194 A compound magic square: 10×10 as 5×5 composed with 2×2

1897.10.24
S193
P195 The broken coins: *

1897.10.31
S194
P196 The broken palings: make roman numerals with five sticks

1897.11.07
S195
P197 Pigs in pens: slightly magic square 3×3

1897.11.14
S196 includes roman numeral forms unknown to me
P198 The ten counters: $abcd \times e = fgih \times j$, $\{a, \dots, j\} = \{0, \dots, 9\}$, max and min

1897.11.21
P197 restated less ambiguously
P199 A novel word square: 7×7 given in permuted form

1897.11.28
S198 also allowed $abc \times de = fgh \times ij$; $915 \times 64 = 732 \times 80$ supposedly is max
P200 Flies on the window panes: 9×9 queens, six agree with another solution

1897.12.05
S197 had 110 solutions
S199 all seven words are common, given the British spelling SCEPTRE
P201 The phonetic jumble: make rebus-like words such as XL

1897.12.12
S200, each of three queens moves only one square
P202 The Red Death League: factorization

1897.12.19 special Christmas Crackers
PC1 The scientific skater: cover 8×8 in straight lines and return to start; the starting point is outside
PC2 The bag of nuts: *
PC3 The Christmas party: relationships
PC4 The Christmas dessert puzzle: 8-puzzle on cylinder, shortest path to a latin square starting from CCA/MMA/ACM (first remove the last A)

1897.12.26
S201 includes LA, KN, QPDT, FEKC, OBCT
S202 300737 farthings = 311×967
P203 The parish council election: how many ways to select at most 9 of 23

1898.01.02
SC2, SC3, SC4
P204 The alphabet puzzle: shortest sentence covering all 26 letters

1898.01.09
S203
P205 The scientific skater: repeat of SC1 from 1897.12.19 with clarifications

1898.01.16
S204 Blowzy frights vex and jump quick
P206 The Klondyke Railway puzzle: bishop cover

1898.01.23
S205 in 14 steps [proved optimal by Selfridge in AMM 62(1955)443]

P207 The match alphabet: make poem using only stick letters

1898.01.30
S206 says without proof that 8 are needed; doesn't separate into 4 white +
4 black (an easy proof exhibits 8 independent points)

P208 A Canadian "corker": 5x7 analog of P20

1898.02.06
S207
P209 A puzzle for joiners: dovetail joints at right angles

1898.02.13
S208
P210 Next-door neighbours: *

1898.02.20
S209
P211 A conditional magic square: 4x4 with {1,5,13,15} in some line, 1 in corner

1898.02.27
S210
P212 The frolicsome knight: 7x7 knight path starting in center

1898.03.06
S211
P213 Change for a shilling: how many ways, and how many coins in all?

1898.03.13
S212
P214 The jovial huntsman: reentrant knight tour on 9x9 minus nine cells

1898.03.20
S213
P215 The boat race puzzle: choose 4 L's and 4 R's from {4xL,5xR,2x[LR]}

1898.03.27
S214
P216 A knotty question: dissection into Greek cross avoiding knots

1898.04.03
S215
P217 The "Dispatch" clocks: when will three clocks agree?

1898.04.10
S216 cooks his intended solution, which he will hold for later

P218 The nine discs: max 3-letter words in 16 directed lines of 3x3

1898.04.17
S217 and reminds readers that 1900 will not be a leap year

P219 Squares and digits puzzle: $abc=def/2=ghi/3$, $\{a,\dots,i\}=\{1,\dots,9\}$

1898.04.24
S218
P220 The Grand Lama's problem: dissect 8x8 into 4 equal pieces, each one
containing a designated square

1898.05.01
S219: 192,384,576; 219,438,657; 273,546,819; 327,654,981

P221 Wild duck shooting: rook tour a8 to g1, fewest moves if tenth is to e1

1898.05.08
S220
P222 The chessmen puzzle: how many automorphisms of the initial position?

1898.05.15
S221
P223 Muckleheap's oxen: *

1898.05.22
S222
P224 Ching-Ching's alphabet: make sentence given 26 initial letters

1898.05.29
S223
P225 Mrs. Perkins's patchwork quilt: 13x13 into fewest smaller squares

1898.06.05
S224
P226 A dividing magic square: 3x3, $(a\backslash b)\backslash c$ constant in 16 ways, fewest digits

1898.06.12
S225 in 11 pieces: "practically only one solution", found by six people;
eleven people found 12 pieces avoiding 1x1s

P227 The linoleum draughts-board: cut a proper chessboard from irregular shape

1898.06.19
S226 also with a multiplying 3x3 with fewest digits; implicitly has a nice
equivalence theorem between multiplying 3x3s and dividing 3x3s
[namely, $ABC/DEF/GHI$ is multiplying iff $AHC/FED/GBI$ is dividing]

P228 The witch's tour: longest possible distance in five queen moves from h5,
never crossing the same cell twice

1898.06.26

S227
P228 revised: the witch should not cross her route

1898.07.03
discussion of Josephus-like problems; Christians/Turks version traced to Tartaglia
P229 The American fleet: 21 ships in seven lines of 5; put them in more lines

1898.07.10
S228
P230 The palindromic sentence

1898.07.17
S229 puts 21 ships in 12 lines of 5
[4^2+4+1 : GF(4) gives 21 lines of 5, if not required to be Euclidean]
P231 The Cube-an problem: find rational solutions to $x^3+y^3 = x+y$, $x>2y$

1898.07.24
S230 Was it a rat I saw?
P232 The cunning kangaroo: knight's tour on 5x10

1898.07.31
S231 smallest solution is $x=8/7$, $y=3/7$; infinitely many solutions from
 $x=(t^2-1)/(t^2-t+1)$, $y=(2t-1)/(t^2-t+1)$
P233 The Nelson puzzle: permutation

1898.08.07
S232
P234 The exchange puzzle: 3x4 permutation by fewest knight-move exchanges

1898.08.14
S233 (doesn't thrill me)
P235 The southern cross: cover as much as possible of 9x9 with 5 queens

1898.08.21
S234 (I had misread the problem; he disallowed knight moves between pieces of the same color)
P236 The copy-book puzzle: find a good sentence from {a,c,e,m,n,o,r,s,u,v,w,x} using each letter exactly twice

1898.08.28
S235 five queens can cover all of a 9x9
P237 The magic cube: 3x3x3 with sums 42 in 31 ways
(not necessarily including the diagonals on the sides)

1898.09.04
S236 "Ox vans, we murmur, can vex cows."
P238 The witches' dance: given 3 white queens on left half, 4 black on right, they should change sides of board --- moving in any order but never becoming en prise (thus, a curious graph on 7/8-queens solutions)
[I think a 9x9 with four on each side would be more attractive, if I can find a symmetrical starting position within the main graph]

1898.09.11
S237 states that nxn cubes are possible for each n
P239 The crazy carpenter of Canterbury: dissection of Aztec diamond into an isosceles right triangle

1898.09.18
S238 in 13 moves
P240 The puzzle orchard: pack six different 10 points in 5 lines of 4' in 8x9

1898.09.25
S239
P241 The ten volumes puzzle: $ab \times cde = fg hij$ with $ab \mid cde$, $\{a, \dots, j\} = \{0, \dots, 9\}$

1898.10.02
S240
P242 The giraffe puzzle: minimum knight cover of 8x8

1898.10.09
S241 $27 \times 594 = 16038$ uniquely
P243 A puzzle in heraldry: how many 4-subsets of the centered array
 $11+11+11+9+9+9+7+5+3+1$ are corners of a square?

1898.10.16
S242 with 12 knights, says it is unique
P244 The gouty giraffes: knight cover like P242 but not covering their own spot

1898.10.23
S243 is 575
P245 The lost statesman: select smallest subset of {D,Q,I,R,W,Z,S,Z,Y} that gives the nickname of a past English statesman

1898.10.30
S244 with 14 knights
P246 The ten tents: in 5 lines of 4, with six of the ten on top or bottom edge

1898.11.06
S245
P247 Circling the squares: distinct integers a_0, \dots, a_9 such that
 $a_i^2 + a_{i+1}^2 = a_{i+5}^2 + a_{i+6}^2$, subscripts mod 10

1898.11.13
S136
P248 The adventurous snail: how long to climb over a wall if he slips at night

1898.11.20
S247
P249 The sixteen barrels of balsam: magic square 4x4 as close as possible
to the given arrangement 1 2 3 4 / 5 6 7 8 / 9 10 11 12 / 13 14 15 0

1898.11.27
S248
P250 The lion and the man: two simultaneous rook tours as in P20

1898.12.04
S249 keeping five in place
P251 The puzzling wall: construct shortest wall cutting poor folk off from lake

1898.12.11 "Christmas supplement"
PC1 Cutting the cake: into five pieces, then making a Greek cross and a square
PC2 The cancelled cheque: *
PC3 Round the clock: Josephus-like problem with a huge increment at each step
PC4 John the cellarer: using measures (3,5), obtain (2,2) from a barrel of wine

1898.12.18
S250, S251
P252 The thirty-six-letter puzzle: 6-queens graph with six colors, max subgraph

1898.12.25
discussion of Achilles and the tortoise
P253 The reflected alphabet: best sentence reading the same reflected in water

1899.01.01
S252 there's only one 6-queen solution; greedy alg nonoptimal, can place 32
P254 Mrs. Coppins's carpet: dissect square into six subsquares of diff sizes

1899.01.08
S253 I DECIDED HE DID HIDE ODD DICE-BOX
SC1, SC2
SC3 with increment 322
SC4 step 6: "John wickedly let the barrel run to waste"
"Men saye yat ye lorde abbotte dyd forgyve Iohn ye waste of so goodlie
wyne for yat he hadde so grete wit and subtletie withal"
P255 The "Dispatch"-box puzzle: Eulerian with basically 4 odd vertices

1899.01.15
S254
P256 Noughts and crosses: is it a forced win?

1899.01.22
S255 uses trick of perspective
P257 [misprinted 256] The ideal magic square: 8x8 with as many as possible
numbers in their initial positions 1...64
Explains how to pronounce his name: "Three syllables, with accent on the first"

1899.01.29
S256
P258 The allotment puzzle: *

1899.02.05
S257 if we recast his solution using binary notation 000000 to 111111,
in row uvw and col xyz he puts the number $A(uvwxyz)^T$, where A is
the binary matrix 010101 and the matrix multiplication is mod 2

100101	
111101	
011010	
011100	
011111	

[His description was of course quite different.] This gives only
16 in their home position, but it is "magic" in many generalized
diagonals. To get 32 elements in home position, can use the matrix

111011	011011
001011	011011
A = 010011	= I + 011011
011111	011011
011001	011011
011010	011011

which is equivalent to complementing the entries in the pattern

xx0000xx
xx0000xx
00xxxx00
00xxxx00
00xxxx00
00xxxx00
xx0000xx
xx0000xx

He says he has no proof that 32 is optimum. [Of course it is
the best one can get from a linear construction like this.]

P259 The D.U.F.F.E.R. Company's engines: equivalent to an 8-puzzle

1899.02.12
S258
P260 The cow and the moon: dissect a cleverly drawn crescent into a square

1899.02.19
S259
P261 The squares of brocade: $8 \times 8 + 6 \times 6$ into 10×10 matching the pattern

1899.02.26
S260
P262 The four frogs: cyclic W0W0B0B0 -> B0B0W0W0 disguised as knight's moves

1899.03.05
S261
P263 The soldiers of the queen: $a \times bc = def = gh \times i$, $\{a, \dots, i\} = \{1, \dots, 9\}$

1899.03.12
S262 "an ancient problem" whose simplicity is explained by "buttons and string"
P264 Foxes and geese: with 3×4 knight moves, change
G00F/G00F/G00F -> F00G/F00G/F00G
never letting an F be a knight-move away from a G

1899.03.19
S263 four solutions, two essentially distinct: $2 \times 78 = 156 = 39 \times 4$, $3 \times 58 = 174 = 29 \times 6$
P265 The five vowels: make an 11-letter English word with sliding blocks

1899.03.26
S264 the 3×4 knight diagram can be simplified as in P262; he credits the
Leeds Mercury for a related chess problem
P266 Crosses and crescents: 8-queen solution using a2 but no corners/diagonals

1899.04.02 begins a special series of six "Mysteries of Scotland Yard"
P267 The crime of the park murder: disjoint routes give clue to murderer
[P267 through P272 were actually given the temporary numbers 1 through 6]
S265

1899.04.09
S266
P268 The crime of the ruby brooch: jewels disappeared preserving local counts

1899.04.16
P269 The crime of the Bloomsbury burglary: can two white wazirs capture two
black ones on a 5×8 board? [a wazir is intersection of king and rook]

1899.04.23
P270 The four elopements: river crossing of four couples with an island;
boat holds 1 or 2 people; no women near a man unless her husband present

1899.04.30
P271 The trail of the smasher: given a planar graph with weighted vertices,
find a simple path from s to t that has weight as close to 60 as possible

1899.05.07
P272 The Wapshaw's Wharf mystery: watch with hour-hand = minute-hand; also
 $ab \times cd = efgh$, $\{e, f, g, h\} = \{a, b, c, d\}$

1899.05.14
P273 The perplexed joiner: square plus triangle -> larger square

1899.05.21
he presents a knight's tour on the $6 \times 8 \times 8$ surface of a cube, inspired by a
rumor about Vandermonde [who actually made a $4 \times 4 \times 4$ tour in 1771]
P274 Farmer Lawrence's cornfields: 7×7 knight's tour, key points 12 moves away

1899.05.28
S273
P275 The towers and fortifications: 10 points in 5 lines of 4 [dual of P176]

1899.06.04
S267, S268, S269, S274; Bergholt one of the winners
P276 The digital century: insert signs to make $1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9 = 100$

1899.06.11
P277 A criminal's secret code: Caesar cipher to be decrypted
S270 says the island is necessary for 4 or more couples; gives solution in
17 moves although "French and English mathematicians have declared
that ... 24 are needed"
S271
S272 says that $96 \times 8745231 = 839542176$ is largest product that contains
all nine digits in its factors
S275

1899.06.18
S276 has many answers, e.g. $123-4-5-6+8-9$, $(1+2-3-4)(5-6-7-8-9)$; the winner
was $123-45-67+89 = 100$ (charging 1 for -, 2 for + and x, etc.)
P278 The ornamental magic square: 5×5 magic square = five 5-queen solutions

1899.06.25
S277
P279 Robinson Crusoe's tea-table: make square from two pieces, avoiding holes

1899.07.02
S278
P280 The two pedestals: find simple rationals such that $x^3 + y^3 = 6$

1899.07.09
S279

P281 The plumber's perplexity: maximum volume of rectangular tank open at top, given its surface area

1899.07.16
S280 $(17/21)^3 + (37/21)^3 = 6$; remarks that $(5/2)^3 + (3/2)^3 = (8/3)^3 + (1/3)^3 = 19$; "the general solution eludes us", but one solution implies infinitely many

P282 The star-spangled banner: how many ways for 5-queen cover all in one line?

1899.07.23
S281
P283 Pat in the Far East: Josephus with large skips

1899.07.30
S282 four essentially different possibilities; $8+4+4+4=20$ different

P284 The silver coins [beginning a series of "easy puzzles for beginners"]: making change

1899.08.06
S283
P285 The eleven bears: 11 points in as many lines of 4 as possible

1899.08.13
S284
P286 The bat puzzle: incredibly easy --- the trick is: there is no trick

1899.08.20
S285
P287 The learned pig: round-the-circle solitaire looking for equality

1899.08.27
S286
P288 A Dreyfus puzzle: divide a certain 4-gon into four congruent pieces

1899.09.03
S287 says it's similar to a "mouse-trap puzzle" considered by others

P289 The gable puzzle: how far do snails crawl?

1899.09.10
S288
P290 The antiquary's chain: count the ways to weld certain links together

1899.09.17
S289
P291 A bun puzzle: divide three buns into four equal parts

1899.09.24
S290 surprises galore in this answer

P292 A philological recreation: explain Dreyfus case in 10 words of same length

1899.10.01
S291 very questionable reduction to 2 dimensions; also misleading data

P293 The Johannesburg hotel: eccentric distribution on 3x3 frames, with sums to be the same on each side even when more patrons are accommodated [similar to classical puzzle called Bachet's wine bins; cf Hoffmann's P6.10]

1899.10.08
S292 "Dreyfus, grossly wronged, through foulest perjury defamed, rightly demands justice." "Too bad for our age, and the end too sad." "France's inhuman conduct towards Captain Dreyfus excites British intense disgust."

P294 The Frog's tour: knight's tour that divides in $3 \times 4 + 3 \times 4 + 4 \times 5 + 4 \times 5$ segments

P295 The magic knight's tour: all rows and cols of his square add to 260, and the two diagonals together sum to 520; is full perfection possible?

1899.10.15
S293
P296 The flag of the shamrock: dissect 5×5 into 4×4 and 3×3 preserving the checker pattern

1899.10.22
S294
P297 The "Dispatch" yacht race: hit 8×8 points in fewest straight segments, $a_4 \rightarrow h_2$, always staying in bounds

1899.10.29
S296
P298 A Transvaal war problem: smallest n with exactly 64 divisors

1899.11.05
S297 uses 14 lines, some of slope $1/2$

P299 the four fours problem: all numbers up to 100 via four 4s and arith signs

1899.11.12
S298
P300 The square of veneer: dissect 5×5 into smaller squares, cutting no grid pt

1899.11.19
S299 "I cannot give all the hundred solutions, as they form very awkward matter to set up in print." The hardest for him were 67, 71, 73, 83, 89; he used factorials, roots, decimal points, repeated decimals; next week he cites $73 = (\sqrt[4]{4!} + \sqrt[4]{4!}) / \sqrt[4]{4!} = 3/2 (48 + 2/3)$

P301 The Natal pickets: 5 queen covers with max solutions holding 4 fixed

1899.11.26

S300
P302 The dispatch rider: *

1899.12.03
S301 several ways to cover 62 with 4 queens; best is c4 c8 g3 h7, leaving a1 b2
P303 Mrs. Hobson's hearthrug: make square from a certain hexagon

1899.12.10
S302
P304 Portrait competition: make a celebrity portrait with 21 straight segments

1899.12.17
S303
P305 Logosticks: put {A,B,...,P} into 4x4, spelling as many words as possible

1899.12.24
P306 The capture of Pretoria: given a network with army divisions at 10 designated vertices, find routes of approximately equal distance to another designated vertex

1899.12.31
S304
P307 The bicycle race: *
He is pleased with the profile of his work recently published in The Captain

1900.01.07
S305
The magic knight's tour (P295) still unsolved; prize extended three more months
P308 The Boer's wife and the pigs: 21 pigs in four styes, where each sty holds $4k+1$ pigs for distinct positive values of k

1900.01.14
S306, S307
P309 The troublesome telephones: make 8 queens to cover the fewest squares

1900.01.21
S308 nested styes, e.g. (((9)4)4)4; he overlooks the case ((5)(9)3)4
P310 The mystic nine: express numbers 1 to 50 using the fewest 9s (cf P30)

1900.01.28
S309 place queens at c1 c2 c3 g2 g3 h1 h2 h3; this frees the eleven cells
a7 a6 a5 b6 b5 b4 e8 e7 f8 f7 f6
P311 The abbey alms-box: square minus a 1×24 slot dissected into squares of different sizes

1900.02.04
S310 he disallows ($\sqrt{9}$)! for completely illogical reasons; also, he fails to express 38, 41, 43, ... with fewer than five 9s
P312 Central solitaire: jump 33 pegs, end in center; fewest multijump moves

1900.02.11
S311 he believes (falsely) that the only solution is the following, found by himself and two readers for a 48×48 square (reading top to bottom):
16x16, 19x19, 13x13, 6x6, 7x7, 12x12, 4x4, 1x24, 1x1, 8x8, 28x28, 20x20
P313 Two men in a trench: riddle

1900.02.18
S312 in 19 moves: 19-17, 16-18, 29-17-19, 30-18, 27-25, 22-24-26, 31-23, 4-16-28, 7-9, 10-8, 12-10, 3-11, 18-6, 1-3-11, 13-27-25, 21-7-9, 33-31-23, 10-8-22-24-26-12-10, 5-17
P314 Cupid's darts: cut a heart with five straight line cuts into max pieces

1900.02.25
S313 his answer is horrible, but some correspondents had passable solutions
P315 The hunting of the rat: path counting like P182, using palindrome S230

1900.03.04
S314 the depression can act almost like a 6th cut, so we can get 21
P316 The eighteen dominoes: choose 18 to make magic square with largest sum; he shows example of the smallest sum (13)

1900.03.11
S315 (surprisingly few readers succeeded)
P317 Lord Roberts's army: noting that $130 = 11^2 + 3^2 = 7^2 + 9^2$, he asks for the least number expressible as sum of squares in just 12 different ways

1900.03.18
S316 yes he does describe the obvious (complementary) solution
P318 Prisoners in Pretoria: 15-puzzle move to a 4×4 knight's path of length 15; keep as many men as possible in place, then use the fewest moves

1900.03.25
S317 explains something of Fermat-Gaussian factors, derives correct answer $5 \times 5 \times 13 \times 17 \times 29$; three readers suggested $5 \times 5 \times 13 \times 13 \times 17 \times 17$, but he says this can be expressed in 13 ways [actually 14, with $(5 \times 13 \times 17)^2 + 0^2$]
P319 Three squares puzzle: dissect a square into fewest pieces to assemble three equal squares

1900.04.01
S318 only 40 of the 80 possible knight's paths have the correct parity; only 4 of those are attainable with two knights unmoved; we're left with a 13-puzzle, and he gives a 66-move solution. "I cannot state positively that there is not a shorter way."

P320 The gardener and the cook: *

1900.04.08

S319 six pieces, improving on seven in previous puzzle books
 P321 Don Manuel's doubloons: any two of {a-d,a,a+d} sum to perfect square
 S295 a magic knight's tour now seems impossible but he sees no way to prove it

1900.04.15

P320 is still not solved, is carried over
 P322 The Easter egg problem: solve $a^3+b^3+c^3 = 27$ in positive rational a,b,c

1900.04.22

S321 says the smallest answer is 482, 3362, 6242
 P323 The price of pies: *

1900.04.29

S320 trick of sexist pronouns fooled people
 S322 simplest solutions are $27 = (3/2)^3+2^3+(5/2)^3 = (8/3)^3+2^3+(1/3)^3$
 P324 Flies on the wall paper: 16 points on 8x8, no three in a line

1900.05.06

S321
 P325 The mandarin's puzzle: 24-puzzle by knight moves, very like an 8-puzzle:

16		01
11 (03) 13		02 (03) 04
22 (06)(07)(08)(09) 21		05 (06)(07)(08)(09) 10
19 (12) 04 (14)(15)	-->	11 (12) 13 (14)(15)
05 (17)(18) 02 (20) 01		16 (17)(18) 19 (20) 21
10 (23)(24)		22 (23)(24)
00		00

1900.05.13

S324 many solutions but easiest is [ab][56][cd][12][ef][78][gh][34]
 P326 Round the mulberry bush: 13 children in 6 rings, each pair adjacent once

1900.05.20

S325 32 moves needed if all parenthesized points untouched [corrected to 34, perhaps, on 1900.06.03]; 30 moves is however possible otherwise
 P327 The broken triangle: < 12 pieces yield 1, 2, or 3, equilateral triangles

1900.05.27

S326 powers of a 13-cycle cover K13 with six cycles; he claims to have a pretty method for the nonprime cases
 P328 The Mafeking cheeses: 1111111111111111 -> ...4...4...4...4... where each move passes over four points

1900.06.03

S327 five pieces actually suffice
 P329 Alphabetical solitaire: on the old (French) 37-cell peg solitaire board, leave pegs in the shape of a letter W

1900.06.10

S328
 P330 The tethered goat: *

1900.06.17

S329 6-19, 10-12, 24-10, 36-24, 19-6, 21-19, 28-26, 8-21, 4-17, 1-11-25-27, 7-5, 3-1-11, 24-10-12-14-28-26, 35-25-27, 33-31, 37-35-25

	x	x
leaves a fine	x	x
	x	x
	x	x
	x	x

P331 Golf made easy: find stroke lengths a,b so that {8, 9, ..., 16} expressible as sum/differences of fewest total strokes

1900.06.24

S330
 P332 Tom Tiddler's ground: how many ways to put 12 nonattacking bishops on 7x7?

1900.07.01

S331 using 4 and 5 leads to 26 strokes total
 P333 The battle of Hastings: solve the Pell equation $61x^2 + 1 = y^2$

1900.07.08

S332 states general solution 2^n and proves it carefully in the case $n=7$
 P334 Samuel's savings: generalize " $L66 \ 6s \ 6d = 15918d$ and $6+6+6+6 = 1+5+9+1+8$ "

1900.07.15

S334 smallest x is 226153980
 P335 The grocer's weights: Bachet's classic problem

1900.07.22

S334 only two other solutions
 P336 The baskets of plums: 3x3 magic square of distinct primes

1900.07.29

S336
 P337 The Pekin carpet: 5-queen cover, with 3 consecutive rows/columns unused

1900.08.05

S336
 P338 The postmark puzzle: a probability problem from America

1900.08.12
S337
P339 Cutting on the cross: dissect Greek cross into two Greek crosses

1900.08.19
S338 points out that there is insufficient data
P340 The five tea tins: count arrangements of 5 cubes in peculiar way

1900.08.26
S339 with five pieces [AM p30 improves this only four!]
P341 A Brighton mystery: was Mr. Potts walking with the lady?

1900.09.02
S340
P342 A Southend mystery: can you make the portrait resemble the baby?

1900.09.09
S341
P343 A Clacton mystery: where is the fair Gwendoline?

1900.09.16
S342 [not visible on my copy]
P344 A Ramgate mystery: how would you put this sea serpent together?

1900.09.23
S343
P345 A Herne Bay mystery: can you place the men in the boats?
(the Kirkman schoolgirl problem with a new twist)

1900.09.30
S344 in part, leaving another puzzle unanswered (*)
P346 A Blackpool mystery: can you find each lady's skirt?

1900.10.07
S345 (he explains the new twist in not to A.M.J. on 1900.10.21)
P347 The grasshopper puzzle: cyclic aAAAAA0BBBBBb to bBBBBB0AAAAAa

1900.10.14
P348 The stonemason's problem: $a^3 + (a+1)^3 + \dots + (a+k)^3 = b^2$, $a > 1$, $k > 2$

1900.10.21
S346 and the remainder of S344
S347 for n in general the minimum number of moves is $n^2 + 4n + 2$
P349 The mystic eleven: max nine-digit number and its reversal both
divisible by 11, all digits distinct

1900.10.28
S348 $25^3 + \dots + 29^3 = 315^3$, but there's a better solution $14^3 + \dots + 25^3 = 312^3$
P350 A study in thrift: $n = \text{square} = \text{triangular number}$

1900.11.04
S349 987652413; "reversal" was a joke
P351 The twopenny tube: Hamiltonian path A to A visiting C as late as possible

1900.11.11
S350
P352 A Tokio prisoner: make regular 4-sided figures from 8 colored triangles

1900.11.18
S351 says his diagram can be put into symmetrical form that no reader noticed
P353 The five twinklers: make a good W from a 5-queen cover

1900.11.25
S352
P354 The mysterious park: explain why Manhattan distance doesn't converge to
Euclidean distance

1900.12.02
S353
P355 The philologist's puzzle: find a Hamiltonian path that spells a sentence

1900.12.09
S354
P356 Four baskets of nuts: count partitions of 9999 into at most four parts

1900.12.16
S355 WE OFFER A WEEKLY PRIZE OF HALF A GUINEA
The Rebuke of the King: a fable about awarding prizes
P357 A dream of square numbers: largest square number with digits $\{1, \dots, 9\}$

1900.12.23 Christmas puzzle crackers
P358 Mince pies: is a random positive number of marbles drawn from a bag
more likely to be even or odd?
P359 The flying machine: *
P360 The Christmas pudding: riddle
P361 Scotch shortbread: dissect 20-square pinwheel into $\sqrt{5} \times \sqrt{5}$ squares
P362 Puss in the corner: a board game

1900.12.30
S357 max is 923187456, min is 139854276
P363 The nine treasure boxes: nine squares in three equally spaced progressions

1901.01.06

"a brief retrospect of the puzzles of the century that has just come to a close" ... "the new style first took definite form in Tit Bits, 1896--1898"

P364 The century puzzle: choose 6 points of 10x10, even number in each row/col

1901.01.13
S358 (odd), S359, S360, S361, S362
P363 further clarified, solution will be deferred
P365 The Christmas travellers: *

1901.01.20
S364
P366 Solitaire dominoes: find the largest score possible with 28 dominoes

1901.01.27
S363, S365
P367 The Yorkshire estates: *

1901.02.03
S366 will be deferred until somebody reaches 200; he had published this puzzle first in Tit Bits 1897, with best score 195, but repeated it because he now knows a better solution
P368 In a royal garden: traverse all paths in certain maze with fewest turns

1901.02.10
S367
P369 In memoriam: dissect a St Andrews cross (marked V.R.) to form either two equal Greek crosses or a square [cf T27]

1901.02.17
S368, S366
P370 The four kangaroos: four disjoint knight cycles of length 16

1901.02.24
S369
P371 The Siberian dungeons puzzle: move 16 men into magic square position

1901.03.03
S370 he has reflective symmetry in 4x8, not 90-deg symmetry in 8x8
P372 Fifteen letter puzzle: Steiner triple system on 15 letters, containing as many common English words as possible

1901.03.10
S371 a reader found 15-move solution, Dudeney's was 16; next week gives that reader's improvement to 14, which is probably minimum
P373 The eight bridges: variation of Euler's Königsberg bridge problem

1901.03.17
S372 can make 27 words with letters A E I O U Y B C G L M N P R T
P374 The garden walls: build three walls of same length, enclosing four fields of equal area

1901.03.24
S373 Euler himself overlooked the fact the river has a source
P375 A knot in wood: make largest square from given irregular shape

1901.03.31
S374
P376 On the line: use {1,2,...,9} to form 1/2, 1/3, 1/4, ..., 1/9

1901.04.07
S373
P377 The Easter egg: pack small eggs on large one (edges in two dimensions)

1901.04.14
S374 smallest numerators are 6729/13458, 5823/17469, 3942/15768, 2697/13485, 2943/17658, 2394/16758, 3187/25496, 6381/57429
P378 The thirty-two labels: a weighted variant of P252

1901.04.21
S377 it was another April Fool
P379 A queer coincidence: *

1901.04.28
S378
P380 The buried treasure: *

1901.05.05
S379
P381 The great monad: three easy questions based on the yin/yang symbol

1901.05.12
S380
P382 The coloured cubes: from 9 cubes with faces of 6 colors, make 2x2x2 from 8

1901.05.19
S381
P383 The floral problem: a sort of a magic hexagon (19 points, 12 lines of 3)

1901.05.26
S382
P384 The voyage of the SS. Dispatch: similar to P165

1901.06.02

S383
P385 The changed ace: dissect a heart into a spade

1901.06.09
S384 ascribes basic idea to J\`erome Sharp of Brussels in 1789
P386 The "Dispatch" centenary puzzle: generalize $100 = 91+5742/638$, $\{1, \dots, 9\}$

1901.06.16
S385
P387 The rose garden: *

1901.06.23
S386 confident that there are only eleven answers, of which the most surprising is $3+69258/714$; a nice analysis shows for example that $98+b/c$ is impossible by casting out 9s (if digits of c sum to x , then digits of b sum to $2x$, so $x+2x+8+9 \equiv 0 \pmod{9}$)
P388 A Boer surprise: fewest points in 16 lines of 3 (with amusing patter)

1901.06.30
S387
P389 The five brigands: $200 = A+B+C+2D+3E = 12A+3B+C+D+E$ in nonneg integers

1901.07.07
S388 [Note that he credits this 11-point arrangement to Wilkinson in Z08.41]
P390 Boys and girls: like P108 but swapping the pairs as they move; requires the two vacant positions to end up at extreme left or right

1901.07.14
S389 has 6627 solutions
P391 The harbour table: dissect a square into a regular hexagon

1901.07.21
S390 although P108 (generalized to n hats) can always be done in n steps, he claims the new problem requires $n+1$; he has not succeeded in proving a general upper bound, but when $n=4$ a 5-move solution is
00ABABABAB->BAAB00ABAB->BAABABA00B->BAABA00ABB->B00BAAAABB->BBBBAAAA00
P392 The fifteen dominoes: 00 to 44, how many ways to line them up properly? [equivalent to counting Eulerian paths on K_5 plus loops]

1901.07.28
S391 in five pieces; but see corrections below (1901.08.11)
[Also, Mealy has pointed out prior discovery by Busschop in 1875]
P393 The panjandrum puzzle: make a latin rectangle of six-letter words

1901.08.04
S392 126720; he will reveal the answer for full set 00 to 66 later
P394 The fly and the triangle: count near-Eulerian paths

1901.08.11
S393 nobody got more than 3×6 , so he now thinks the puzzle was a bad idea
P395 A case of "pi": fewest exchanges to achieve a given permutation

1901.08.18
S394 is equivalent to part of S392!
P396 The tiring irons: Chinese ring puzzle (he cites Cardan 1550, Wallis 1693)

1901.08.25
S395 yes, he discovered the cycle principle [published by Cayley in 1849]
P397 The two horseshoes: dissect them into a circle via four different pieces he states in a note that there are exactly 8×880 magic squares using $\{1, \dots, 16\}$

1901.09.01
S396 he converts to binary and then essentially to Gray code; no citations
P398 A dissected magic square: go from standard order to magic (upside down OK)

1901.09.08
S397 relates to yin/yang
he also states 7959229931520 domino paths on the full set of 28 (see S392)
P399 The kennel puzzle: like P371 (but 4×5 knight tour instead of 4×4 magic sq)

1901.09.15
S398 his best has only seven pieces!
P400 On buying apples: *

1901.09.22
S399
P401 The millionaire's perplexity: convert 1000000 to radix 7

1901.09.29
S400
P402 The greyhound puzzle: count 4×5 knight's tours from corner to opposite

1901.10.06
S401
P403 Domestic economy: *

1901.10.13
S402
P404 Sir Hedron's travels: shortest Chinese postman path on icosahedron

1901.10.20
S403
P405 A new linoleum puzzle: make 13×13 from checkered 12×12 and 5×5

1901.10.27
S404
P406 Sir Ralph de Fitzwalter: sum abcd over all distinct a,b,c,d in {1,...,9}

1901.11.03
S405
P407 No-blank domino squares: 6x6 magic square from 18 of 21 dominoes 11 to 66

1901.11.10
S406 [problem had been considered by Bhaskara in middle ages]
P408 Lion hunting: count pairs of cells on 9x9 not bishop's move apart

1901.11.17
S407
P409 Dominoes in progression: play six dominoes with scores rising by constant

1901.11.24
S408 $5664 = 81 \times 80 - 816$
P410 The clown puzzle: generalize $24 \times 651 = 15624$

1901.12.01
S409
P411 Points and lines: pack distinct sets of 10 pts, 5 lines of 4, into 14x14

1901.12.08
S410 has 22 solutions, e.g. $57 \times 834 = 47538$
P412 The excursion ticket puzzle: making change for 19s 9d

1901.12.15 "Some easy Christmas puzzles"
P413 The perplexed hairdresser: pigeon hole principle
P414 Queer arithmetic: trick
P415 Drawing a spiral: how to do it perfectly with two compasses
P416 Sempronius and the corn: *
P417 Jack and the beanstalk: find serious blunder in illustration
P418 The bad boy: another such blunder
P419 Crossing the bridge: avoid a self-reference paradox
P420 The Christmas lucky bag: probability
P421 Cats and rats: *
P422 Edwin and Angelina: *
P423 Christmas shopping: maximum edges covered by 16 rooks moves on 8x8
P424 A reminiscence: 15-puzzle 1234/5678/9abc/df0 -> 0123/4567/89ab/cdef

1901.12.22
S411 admirably displays his repertoire of 10-point 5-line configurations
S412 essentially computes the coefficient of $z^{(19 \times 48 + 9 \times 4)}$ in the power series

$$\frac{1}{((1-z)(1-z^2)(1-z^4)(1-z^{12})(1-z^{24})(1-z^{48})(1-z^{96})(1-z^{120})(1-z^{192})(1-z^{240})(1-z^{480})(1-z^{960}))};$$
the answer (458908622) is correct, as is his table of ways to make change for pennies, florins, crowns, etc.
P425 The heraldic ribbon: based on decimal representation of 1/17

1901.12.29
an essay on the solving of puzzles
P426 The Christmas tree ornament: count Eulerian paths on octahedron [cf P404]

1902.01.05
S425 nice discussion; uses 1/47, admits a small chance of shorter solution
P427 Under the veil: place four 8-queen solutions to make four-letter words

1902.01.12
S413, S414
S415 is misleading, it does NOT give a perfect spiral; discontinuous curvature does fool the eye though
S416, S417, S418, S419, S420, S421, S422
S423 a4 h4 h5 a5 a3 g3 g6 b6 b2 f2 f7 c7 c1 e1 e8 d8 d1 gives the maximum, 70
S424 in 44 moves: ebc876ac874364784a59c48ebfdc48ebfea594895621;
"I am convinced that it cannot be done in fewer moves"
S426 he has a method too hard to explain that gives 1488 after 5 minutes' work
P428 The Christmas pudding: *
he warns two competitors to stop their improper collusion or he will name them

1902.01.19
S427 asks readers to confirm optimality (see below)
P429 The clock puzzle: how often the two hands change places in [3pm..midnight]

1902.01.26
S428
P90 repeated by popular request
P430 The sharpshooters puzzle: Kayles with 1+11 pins

1902.02.02 (he does not remark on the date)
S429
P431 The motor-car puzzle: count Hamiltonian cycles on a certain planar 3-regular graph

1902.02.09
S430
P432 Papa's puzzle: center of gravity [puzzle named after Pappus]

1902.02.16
S431 redraws the graph making its automorphisms plain
P433 The two constellations: each of ten stars, 5 lines of 4,

one enclosed in the other without crossing any lines

1902.02.23
S432
P434 The circular railway: sliding or jumping on a circle, move to spell a word

1902.03.02
S433 he succeeds on 12x14 but isn't absolutely sure it is optimum
he urges Irish readers to score better
P435 The flagstaff puzzle: smallest square that's diff of squares in k ways

1902.03.09
S434
P436 The "Dispatch" tiles: max 8-partite subgraph of 8x8 queens graph minus c6

1902.03.16
S427 was completed exhaustively by readers
P437 The compasses puzzle: bisect a line with compasses only

1902.03.23
S435, S436
P438 The great chain puzzle: cut linked pieces from a piece of cardboard

1902.03.30
S437
P439 An Easter egg puzzle: Chinese remainders with a cross twist
note "Thanks for the cutting. I had already read an account of Major MacMahon's
lecture at the Royal Institute. He set his hearers an impossible task ..."
[orthogonal 6x6 latin squares]

1902.04.06
S438 trick is to split the inside of the cardboard; cites Kind Words 1866
P440 The triangle and square: dissect equilateral triangle into perfect square

1902.04.13
S439
P441 The four porkers: 4 nonattacking queens in 6x6 cover all

1902.04.20
S440 is announced ("four pieces ... one of the most interesting, if not
important, of the over four hundred problems that have appeared in these
columns") but held over
discussion of magic squares; Fr'enicle in 17th century showed there are 880 of
size 4x4; Dudeney knows 346752 and 567705600 special ones of sizes 5x5, 6x6
P442 The magic square and cross: 7x7 magic square containing 3x3 and 4x4
magic subsquares

1902.04.27
S441 has 7 nonisomorphic solutions
P443 The three sheep: like P441 but with 3 nonattacking queens covering a 4x4

1902.05.04
S442
S440 (key is to pack the three 60-degree angles into 180)
P444 The twenty sandwich-men: count 2x10 Young tableaux
MacMahon's lecture reported in Nature, 13 March 1902; related letter 3 April

1902.05.11
S443
P445 The four princes puzzle: [printed erroneously as "three princes"]
find four integer-sided right triangles of equal area

1902.05.18
S444 states the general solution for 2xn is Catalan number, but gives no proof
P446 The sabbath puzzle: how can Christian, Jew, Turk all celebrate the
sabbath in the same time and place

1902.05.25
S445 part one: sides of integer right triangle are u^2-v^2 , $2uv$, u^2+v^2
Canterbury puzzles just beginning in Harmsworth London Magazine
P447 The reeve's puzzle [slighted extended from its form in that series]:
4-peg tower of Hanoi with 36 discs [cf P124]

1902.06.01
S446 two of them must travel around the world, as in Poe and Verne stories
P448 Painting a pyramid: nonisomorphic ways to color the faces of a
tetrahedron with a 7-color palette, mirror images not isomorphic

1902.06.08
S445 part two; a reader traced this problem to Frenicle
P449 The peace puzzle: sentence whose words begin PEACE WITH HONOR

1902.06.15
S447 unrigorous claim that 1793 moves are needed; considers general n also
S448 four colors, 2 ways; three colors, 3 ways; two colors, 3 ways
P450 Pasteboard patience: assemble 15 pieces into a square

1902.06.22
S449
P451 A coronation puzzle: dot-to-dot, find a crown hidden among stars

1902.06.29
S450

P452 More pasteboard patience: with the pieces of P450, form a right triangle

1902.07.06
S451
a discussion of prime numbers
P453 A magic square of composites: consecutive composites make magic 3x3
and if this is too easy, try for magic square with 16 primes

1902.07.13
S452
magic squares of primes much easier than he thought; now he asks for
16 primes <100, and also for a 5x5
P454 A new floral variety: like P383 but 1 and 18 are not adjacent

1902.07.20
S453; its extension is held over; he now has 6x6 and 7x7 prime magic squares
P455 A Bisley puzzle: maximum points in unit square, at least 3/17 apart

1902.07.27
S454
P456 Church and state: 4 queens cover 62 squares including all four borders
he says "Of course 1 is a prime number ... I have often wondered why it is
generally omitted from the tables"!

1902.08.03
S455 he gets 44, but it doesn't look optimum
his 'prime' magic squares 4x4, 5x5 flawed by appearance of 1
P457 A cow's progeny: Fibonacci's rabbit problem

1902.08.10
S456 he thinks the only solution is a2 d8 g5 h1, omitting b4 c3
P458 Chinese money: making change

1902.08.17
S457
P459 The thirty-one puzzle: game looks simple but has traps

1902.08.24
S458
P460 The table-top and stools: dissect circle into two oval-shaped pieces

1902.08.31
S459
P461 The knight's banners: on Greek cross 4x4+12x4+4x4 he proposes knight's
tour (but curiously he doesn't ask for a reentrant one)

1902.09.07
S460
P462 The key to the Greek cross: all ways to dissect into four pieces and
make a square

1902.09.14
S461 still doesn't address the question of reentrancy
P463 Concerning a cheque: *

1902.09.21
S462 infinitely many solutions, but doesn't show that he has exhausted them
P464 Napoleon's puzzle: tangrams

1902.09.28
S463
P465 The Burmese plantation: 22 points in 7x7 with the most lines of 4

1902.10.05
S464
P466 The smugglers' wine: divide equally some wine and bottles

1902.10.12
S465 with 21 lines
P467 The motor-car tax: factor 1111111111

1902.10.19
S466
P468 A reversible magic square: turn a 4x4 upside down (2 or 4 <-> 7, 6 <-> 9)

1902.10.26
S467
P469 Choo-Chum's railway engine: more non-math tangram cuteness

1902.11.02
S468 use orthogonal latin squares [but I think 1 6 8 9 would look much better
than his 2s and 7s, also they would produce the _same_ sum upside down]
P470 The cross and the triangle: dissect Greek cross into equilateral triangle

1902.11.09
S469
P471 The mandarin's railway: counting simple paths

1902.11.16
S470 he believes six pieces is minimum
P472 Daddy Dick's digits: $50 = 37 + 2548 / 196$ with $\{1, \dots, 9\}$ [cf P386]; how about
representing the numbers 13, 14, 15, 16, 18, 20, 27, 36, 40, 69, 72, 94?

1902.11.23
S471
P473 The Chinese cross: a six-piece burr ("very ancient")

1902.11.30
S472 he thinks 15 and 18 impossible, except as $0+b/c$; 1,2,3,4 are obviously impossible; 16, 20, and 27 seem to have unique solutions
P474 Domino quadrilles: arrange 28 dominoes in $10+10+8+8+10+10$ making 14 single-valued 2×2 s

1902.12.07
S473
P475 Casting the die: probability of exactly one 1 in four throws

1902.12.14
S474
discussion of Nine Men's Morris
P476 Ovid's game: a simpler variant mentioned by Ovid, but with only three men

1902.12.21 Christmas puzzle crackers
P477 A Christmas card: rebus
P478 The perplexed traveller: explain too-too-too-too-too-too, faw-faw-...-faw
P479 Dissecting the Christmas pudding: divide circle into 6 equal-shaped pieces, each piece containing exactly 6 plums
P480 A conundrum: why is the dog in the picture like a housekeeper?
P481 A Yuletide tryst: *
P482 The maze: counting simple paths [is P471 in disguise]
S475

1902.12.28
S476 forced win for first player, but becomes subtle and interesting if the first player is not allowed to play in the center
P483 Multiplying magics: fewest figures, using any scale of notation [cf P226]

1903.01.04
discussion of scales of notation
P484 The square, cross, and circle: as viewed from three different directions

1903.01.11
S477, S478, S479 [puzzle badly printed hence discarded], S480, S481, S482
S483 (with superfluous diagram G, see next week)
P485 The seven hats: probability that a random perm of BBBWWW is BxxxxxB

1903.01.18
S484
P486 The four sons: L-tromino dissected in four equal parts all touching center

1903.01.25
S485
P487 Farmer Wurzel's estate: calculate area of a certain hexagon

1903.02.01
S486
P488 Magic squares of two degrees: the sum of the squares also is constant

1903.02.08
S487 nicely explained (although Pick's theorem would be easier)
P489 The dishonest butler: barrel of wine gradually diluted

1903.02.15
S488 he is close, and cites a mysterious French reference to "M. Pfeffermann"
P490 Find the tree: another variant of P165

1903.02.22
S489
S488 he how has it, but will give readers more time
P491 A puzzle of old Newgate: 8-puzzle to magic square, with new twist

1903.03.01
S490
he explains how to construct a regular pentagon
P492 The pentagon and square: dissect one into the other

1903.03.08
S491
P493 The arithmetical pig: generalize $41096 \times 83 = 3410968$

1903.03.15
S492 six pieces (previous best was seven, by Busschop)
P494 Five stools and cheeses: tour of Hanoi with 5 pegs, cf P124 and P447
he now knows 2774016 nonisomorphic magic 5×5 s of restricted kinds

1903.03.22
S493
P495 The field and the pond: area of certain lunes

1903.03.29
S494 announced, but held over to make room for
S488 with two solutions, one found by T. R. Baxter; both can be described with an extension of my method in S257 above, now using $A(uvwxyz)^T + b$, where

010011	0	101001	0
110001	0	110100	0

Dudeney's $A = 101010$, $b = 0$; Baxter's $A = 111110$, $b = 0$.

111110	1	011010	0
100111	1	001011	1
001100	0	010101	0

The most important criteria are that A be nonsingular (mod 2) and its left and right 3x6 submatrices should each have distinct nonzero rows
P496 The twenty-one trees: possible with 7 rows, 6 per row; but how many rows can be made if you only need 5 per row? [same as P229]

1903.04.05
S494, S495
P497 The British Isles: fanciful play on shapes

1903.04.12
S496 very strongly believing that 12 is max, he's "utterly unable to prove it"; two ways to get 12 are illustrated
P498 Buying chestnuts: a trick of wording

1903.04.19 begins a special six-week series of "mystery puzzles"
M1 Why was Morgan not arrested?: trick of wording
S497

1903.04.26
M2 What are they all looking at?: *
S498

1903.05.03
M3 Can you find the King and Queen?: reconstruct mutilated portrait

1903.05.10
M4 How did he get out? trick of words

1903.05.17
M5 The motor-car puzzle: *

1903.05.24
M6 Can you find the man's wife: more tricks

1903.05.31
discusses the classification of puzzles
P499 The mutilated word: find all words that end in -cion

1903.06.07
reminiscences as he reaches 500 puzzles
P500 The great cigar puzzle: reflection principle in games

1903.06.14
S499
P501 The spider and the fly: *

1903.06.21
S500 held over, since nobody has yet solved it
P502 A deified puzzle: path counting [cf P182]

1903.06.28
S501
P503 Mischief bruin': riddle

1903.07.05
S500, S501
P504 A kite-flying puzzle: *
a note to T.R.B. [undoubtedly Baxter] suggests forming large magic squares of two degrees [cf P488] by composition of smaller ones

1903.07.12
S503
P505 Those fifteen sheep: put 15 sheep in four pens, giving same number in each

1903.07.19
S504
P506 The Dorcas society: mystery

1903.07.26
S505 (oooooh; the pens weren't empty at the beginning)
P507 Crack shots at Bisley: *

1903.08.02
S506
P508 The Dutchmen's wives: * [AM 139]

1903.08.09
S507
P509 The inlaid table top: square dissected into six pairs of dissimilar triangles having integer sides and integer area

1903.08.16
S508
P510 A new domino magic square: 24 dominoes in 7x7 minus center

1903.08.23 [missing from my set of copies, but reconstructed as best I could]
S509 (illustration missing, see next week for clarification)
P511 Playing with pebbles: trick of wording

1903.08.30

S510 many, with magic constants 18, 19, 20, 21, 22, or 23
S509 triangle sides 8,15,17; 17,25,28; 5,12,13; 13,13,24; 12,16,20; 20,20,24
P512 The shamrock flag: dissect a certain hexagon into square with restrictions

1903.09.06
P511
P513 The lady and the waiter: French tricks of wording

1903.09.13
S512
P514 Perplexing dinner party: six couples in a circle, no man by his wife
[this is the classical "probl`eme des m`enages"]

1903.09.20
S513
P515 The Chinese maze: shortest route, and how to thread a maze at night

1903.09.27
S514 80 ways; he doesn't know a general formula, but he essentially reduces
it to calculating the permanent of 111100
111001
110011
100111
001111
011110

P516 The spot on the table: *

1903.10.04
S515
P517 Broken draughts-board: checkerboard in eight parts, size 5,6,7,8,8,9,10,11

1903.10.11
S516
P518 The converted miser: * [AM116]

1903.10.18
S517
P519 Pheasant-shooting: trick *

1903.10.25
S518
P520 The beanfeast puzzle: *

1903.11.01
S519
P521 A playing-card puzzle: count orthogonal 4x4 latin squares that are magic

1903.11.08
S520
P522 The egg-merchant's story: *

1903.11.15
S521 Bachet erred by a factor of 2
P523 Five jealous husbands: river crossing, boat holds 3

1903.11.22
S522
P524 The four market women: *
he doesn't know Tarry's proof that 6x6 orthogonal latin squares don't exist

1903.11.29
S523
P525 How to make cisterns: max vol of 1-parameter family of rectangular prisms

1903.12.06
S524
P526 The unfinished square: partially magic 7x7 from {1,2,3,5,6,...,49}

1903.12.13
S525
P527 Cannon ball pyramids: number > 1 that is both square and square pyramidal

1903.12.20 Christmas puzzle crackers
PC1 Tales with tangrams: which of 31 figures is not possible with tangrams?
PC2 Across the Stilton: riddle
PC3 Uncle George's poser: self-reference
PC4 The pirate's flag: dissect, changing 12 stripes to 10
PC5 The great sugar-plum scramble: *
PC6 A small marriage portion: trick *
PC7 A remarkable plant: riddle
PC8 A stellar problem: draw large star not touching others
S526

1903.12.27 New Year puzzles
[henceforth the puzzles aren't numbered, but I'll continue consecutively]
P528 The menagerie puzzle: 4x4 cages filled with animals, disjoint sets of
letters in rows, columns, and diagonals
P529 The boys and the apple-woman: *
S527 4900 (is it unique?)

1904.01.03
P530 How did Judkins sell his cattle?: *
SC3, SC2, SC1, SC4, SC6, SC7

1904.01.10
P531 The great Grangemoor mystery: three hands of clock nearly equidistant
SC8, SC5
S528, S529

1904.01.17
P532 The smart young chick problem: *
P533 The Frenchman's poser: language quirk
S530

1904.01.24
P534 The ABC of riddles: why is A like noon...why is Z like a cage of monkeys?
S531

1904.01.31
P535 The Japanese fleet: Interchange quadruples of counters in an E shape
S532, S533

1904.02.07
P536 Problem of leap-year ladies: *
S534 A is in middle of DAY...Z is found in ZOO

1904.02.14
P537 The ugly valentine: cut it out and make it more presentable
S535 in 43 moves (found by nine solvers; twenty did it in 44, hundreds in 45)

1904.02.21
P538 An attack on the Russian fleet: 16 points, remove one by first passing
three others in a straight line; how many at most can be removed this way?
S536

1904.02.28
P539 The banker's puzzle: force a prime number in a certain game
S537

1904.03.06
P540 The architect and the spring poet: build a square house with southerly
exposure from windows on every side
S538 can sink ten, e.g. as follows:
 4 .
 8 6 . . 7
 . . (first remove 0, then 1, ..., then 9)
 1 3 . 0 2
 5 9

1904.03.13
P541 The Japanese jack: use ruler and compass to approximate the circumference
S539 solved only by G Wotherspoon
S537 continued, he claims that only two of "thousands" found the right answer

1904.03.20
[starting this week the column no longer has Dudeney's byline, and it soon
degenerates; therefore I list only the answers to D's previous puzzles]
S540 build the house at the North Pole

1904.03.27
S541 an unmemorable construction

Connections with The Canterbury Puzzles:

CP1 is simpler form of P447
CP3 = P263
CP4 = P243
CP7 = P169
CP8 = P405
CP9 = P168
CP10 = P200
CP11 is similar to P192
CP12 = P298
CP13 = P12
CP16 = P283
CP19 = P369
CP20 is related to P280
CP22 cooks P249
CP23 is related to P255
CP24 is a simplification of P356
CP25 = P373
CP26 = P440
CP27 is similar to P72
CP28 = P354
CP30 = P315
CP31 = P94
CP32 = P331
CP35 is similar to P383
CP37 is related to P260
CP40 is related to P311
CP41 is related to P8
CP42 = P293
CP43 is the 4x4 analog of P252 (6x6) and P436 (8x8)
CP45 = P489
CP46 is similar to P333

CP47 is the 111111 analog of P467 (1111111111)
 CP48 = P347
 CP59 = P221
 CP61 is related to P280
 CP62 = P341
 CP65 = P267
 CP66 = P380
 CP67 = P4
 CP68 = P52
 CP69 = P80
 CP70 = P44
 CP71 = P16
 CP72 = P60
 CP73 = P430
 CP75 = P501
 CP76 = P466
 CP77 = P512
 CP78 = P269
 CP79 = P459
 CP82 = P493
 CP83 = P425
 CP84 = P319
 CP85 = P64
 CP86 = P285
 CP89 = P165
 CP91 = P340
 CP92 = P441
 CP93 = P198
 CP94 = P264
 CP95 = P279
 CP97 = P281
 CP100 = P326
 CP101 = P241
 CP102 = P468
 CP103 = P471
 CP105 = P506
 CP106 = P248
 CP107 = P445
 CP108 = P30
 CP109 = P256
 CP110 = P476
 CP111 = P223
 CP76 = P113
 CP114 = P55

(I think CP81 and CP88 can also be found, but I don't have time to trace them)

Connections with Amusements in Mathematics:

AM4 = P520
 AM5 = P379
 AM6 = P122
 AM12 = P334
 AM16 = P401
 AM23 = P284
 AM25 = P458
 AM26 = P191
 AM27 = P142
 AM29 = P195
 AM30 (second part) = P420
 AM31 = P403
 AM32 = P412
 AM33 = P90
 AM34 = P126
 AM35 = P530
 AM36 = P400
 AM37 = P498
 AM45 = P39
 AM49 = P210
 AM50 = Christmas puzzle PC2 of 1897.12.19
 AM55 = P103
 AM60 = P272
 AM61 = P429
 AM63 = P531
 AM64 = P217
 AM77 = P219
 AM82 = P198
 AM84 is a simplification of P410
 AM90 = P386
 AM91 = P472
 AM92 = P357
 AM93 = P349
 AM94 = P276
 AM97 = P516
 AM105 = P203
 AM108 = P536
 AM109 = Christmas puzzle PC5 of 1903.12.20
 AM112 = P71
 AM112 = P173
 AM116 = P518
 AM118 = P247
 AM129 = P333

AM130 = P231
 AM131 = P321
 AM132 = P363
 AM133 = P389
 AM134 = P539
 AM135 = P348
 AM137 = P350
 AM138 = P527
 AM139 = P508
 Amp28 refers obliquely to P440
 Amp30 comes from the solution to P462
 Amp31 comes from the solution to P369
 AM142 = Christmas puzzle PC1 of 1898.12.11
 AM143 = P339
 AM144 = P470
 AM146 = P288
 AM148 = P291
 AM149 = P361
 AM154 = P303
 AM155 = P492
 AM156 = P327
 AM157 = P460
 AM158 = P381
 AM159 = P300
 AM160 = P397
 AM162 = P438
 AM170 = P296
 AM172 = P254
 AM173 = P225
 AM174 = P261
 AM177 = P375
 AM180 = P486
 AM183 = P415
 AM184 = P115
 AM189 = P367
 AM190 = P487
 AM194 = P374
 AM196 = P330
 AM197 = P437
 AM199 = P432
 AM200 = P504
 AM201 = P525
 AM206 = P176
 AM207 = P186
 AM209 = P229 = P496
 AM210 = P246
 AM211 = Christmas puzzle PC1 of 1896.12.13
 AM212 = P465
 AM213 = P388
 Amp58 comes from 1902.12.14
 AM215 has the same name and illustration as P347 but is really quite different
 AM217 = P434
 AM219 is a simplified form of P12 [after making three moves in the latter]
 AM221 = P259
 AM222 = Christmas puzzle PC4 of 1897.12.19
 AM223 = P193
 AM224 = P535
 AM226 = P384
 AM227 = P312
 AM230 = P8
 AM233 = P328
 AM234 = P234 [an interesting coincidence!]
 AM236 = P108
 AM237 = P390
 AM238 = P395
 AM240 is similar to P104
 AM244 = P423
 AM245 = P426
 AM246 = P404
 AM249 = P351
 AM250 = P20
 AM245 = P431
 AM257 = P502
 AM262 = P505
 AM269 = P345
 AM271 = P372
 AM273 generalizes P326
 AM274 = P287
 AM275 = P172
 AM279 is a simplified version of P444
 AM281 = P448
 AM282 = P290
 AM283 = P392
 AM291 = P220
 AM297 = P206
 AM299 = P332
 AM302 = P436
 AM303 = P427
 AM304 = P521
 AM305 = P252
 AM307 = P278
 AM311 = P282
 AM314 = P235

AM316 is simplified version of P309
 AM317 is simplified version of P324
 AM318 = P408
 AM319 = P244
 AM321 = P221
 AM323 is similar to P161
 AM324 = P250
 AM325 = P16
 AM330 = P297
 AM331 = Christmas puzzle PC1 of 1897.12.19
 AM335 = P274
 AM337 = P370
 AM338 = P294
 AM340 was presented as solution only, 1899.05.21
 AM341 = P262
 AM342 = P325
 AM343 = P318
 AM344 = P399
 AM346 = P222
 AM358 = P72 is similar to CP27
 AM371 = P150
 AM375 = P523
 AM376 = P270
 AM377 = P164
 AM378 = P409
 AM387 = P2
 AM394 = P362
 AM398 = P500
 AM400 = P167
 AM401 = P145
 AM402 = P491
 AM404 = P371
 AM406 = P316
 AMp124 is related to P226 and P483
 AM408 = P488
 AM409 = P336
 AM411 = P453
 AM412 = P295
 AMp134 (Fig. 22) is P482
 AMp135 (Fig. 24) is P515
 AM417 = P396
 AM418 = P184
 AM422 = P446
 AM423 = P268
 AM424 = P209
 AM425 = P417
 AM427 = P519
 AM428 = P320
 AM430 = mystery puzzle M6 of 1903.05.24

 Connections with Modern Puzzles:

MP30 = P184
 MP108 = P391
 MP114 = Christmas puzzle PC4 of 1903.12.20
 MP126 = P123
 MP197 is similar to P192
 MP202 = P256

 Connections with Puzzles & Curious Problems:

PCP18 = P202
 PCP69 = P28
 PCP145 = P160
 PCP147 = P286
 PCP148 = P66
 PCP151 = P154
 PCP166 = P101
 PCP167 = Christmas puzzle PC2 of 1898.12.11
 PCP177 = P225
 PCP180 is an improvement on Christmas puzzle PC1 of 1898.12.11
 PCP187 = P385
 PCP189 = P188
 PCP197 = P76
 PCP214 = P84
 PCP235 = P322
 PCP236 = P168
 PCP250 is related to P395
 PCP256 = P269
 PCP259 = P200
 PCP264 = P16
 PCP282 = P454
 PCP283 = P283(!)
 PCP291 = P141
 PCP303 = P175
 PCP316 = P331
 PCP319 is related to P430
 PCP330 = P368
 PCP343 is an interesting extension of P332
 PCP361 = P229
 PCP388 = P139
 PCP266 is similar to P471

Connections with 300 Best Word Puzzles [ed by Gardner, 1968]

WP53 = P534
WP55 = P503
WP71 = P42
WP72 = P119
WP74 = P31
WP81 = P98
WP82 = P102
WP83 = P78
WP86 = P86
WP90 = P121
WPp51 = P19
WP110 = P61
WP113 = P7
WP125 = P35
WP126 = P10
WP127 = P110
WP128 = P82
WP129 = P63
WP130 = P47
WP134 = P95
WP135 = P135
WP136 = P29
WP137 = P38
WP138 = P3
WP139 = P106
WP140 = P75
WP150 = P45
WP170 = P477
WP174 = P9
WP184 = P91
WP187 = P51
WP189 = P43
WP192 = P11
WP193 = P65
WP199 = P23
WP203 is a simplification of P265
WP224 = P89
WP241 = P218
WP287 is an extension of P245