
THE CANTERBURY PUZZLES



A Chance-gathered company of pilgrims, on their way to the shrine of Saint Thomas à Becket at Canterbury, met at the old Tabard Inn, later called the Talbot, in Southwark, and the host proposed that they should beguile the ride by each telling a tale to his fellow-pilgrims. This we all know was the origin of the immortal *Canterbury Tales* of our great fourteenth-century poet, Geoffrey Chaucer. Unfortunately, the tales were never completed, and perhaps that is why the quaint and curious "Canterbury Puzzles," devised and propounded by the same body of pilgrims, were not also recorded by the poet's pen. This is greatly to be regretted, since Chaucer, who, as Leland tells us, was an "ingenious mathematician" and the author of a learned treatise on the astrolabe, was peculiarly fitted for the propounding of problems. In presenting for the first time some of these old-world posers, I will not stop to explain the singular manner in which they came into my possession, but proceed at once, without unnecessary preamble, to give my readers an opportunity of solving them and testing their quality. There are certainly far more difficult puzzles extant, but difficulty and interest are two qualities of puzzledom that do not necessarily go together.[Pg 24]

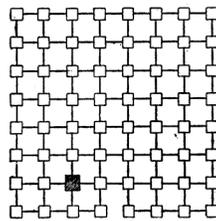
1.—*The Reve's Puzzle.*



The Reve was a wily man and something of a scholar. As Chaucer tells us, "There was no auditor could of him win," and "there could no man bring him in arrear." The poet also noticed that "ever he rode the hindermost of the route." This he did that he might the better, without interruption, work out the fanciful problems and ideas that passed through his active brain. When the pilgrims were stopping at a wayside tavern, a number of

cheeses of varying sizes caught his alert eye; and calling for four stools, he told the company that he would show them a puzzle of his own that would keep them amused during their rest. He then placed eight cheeses of graduating sizes on one of the end stools, the smallest cheese being at the top, as clearly shown in the illustration. "This is a riddle," quoth he, "that I did once set before my fellow townsmen at Baldeswell, that is in Norfolk, and, by Saint Joce, there was[Pg 25] no man among them that could rede it aright. And yet it is withal full easy, for all that I do desire is that, by the moving of one cheese at a time from one stool unto another, ye shall remove all the cheeses to the stool at the other end without ever putting any cheese on one that is smaller than itself. To him that will perform this feat in the least number of moves that be possible will I give a draught of the best that our good host can provide." To solve this puzzle in the fewest possible moves, first with 8, then with 10, and afterwards with 21 cheeses, is an interesting recreation.

2.—*The Pardoner's Puzzle.*



The gentle Pardoner, "that straight was come from the court of Rome," begged to be excused; but the company would not spare him. "Friends and fellow-pilgrims," said he, "of a truth the riddle that I have made is but a poor thing, but it is the best that I have been able to devise. Blame my lack of knowledge of such matters if it be not to your liking." But his invention was very well received. He produced the accompanying plan, and said that it represented sixty-four towns through which he had to pass[Pg 26] during some of his pilgrimages, and the lines connecting them were roads. He explained that the puzzle was to start from the large black town and visit all the other towns once, and once only, in fifteen straight pilgrimages. Try to trace the route in fifteen straight lines with your pencil. You may end where you like, but note that the omission of a little road at the bottom is intentional, as it seems that it was impossible to go that way.

3.—*The Miller's Puzzle.*



The Miller next took the company aside and showed them nine sacks of flour that were standing as depicted in the sketch. "Now, hearken, all and some," said he, "while that I do set ye the riddle of the nine sacks of flour. And mark ye, my lords and masters, that there be single sacks on the outside, pairs next unto them, and three together in the middle thereof. By Saint Benedict, it doth so happen that if we do but multiply the pair, 28, by the single one, 7, the answer is 196, which is of a truth the number shown by the sacks in the middle. Yet it be not true that the other pair, 34, when so multiplied by its neighbour, 5, will also make 196. Wherefore I do beg you, gentle sirs, so to place anew the nine sacks with as little trouble as possible that each pair when thus multiplied by its single neighbour shall make the number in the middle." As the Miller has stipulated in effect that as few bags as possible shall be moved, there is only one answer to this puzzle, which everybody should be able to solve.

4.—*The Knight's Puzzle.*

This worthy man was, as Chaucer tells us, "a very perfect, gentle knight," and "In many a noble army had he been: At [Pg 27] mortal battles had he been fifteen." His shield, as he is seen showing it to the company at the "Tabard" in the illustration, was, in the peculiar language of the heralds, "argent, semée of roses, gules," which means that on a white ground red roses were scattered or strewn, as seed is sown by the hand. When this knight was called on to propound a puzzle, he said to the company, "This riddle a wight did ask of me when that I fought with the lord of Palatine against the heathen in Turkey. In thy hand take a piece of chalk and learn how many perfect squares thou canst make with one of the eighty-seven roses at each corner thereof." The reader may find it an interesting problem to count the number of squares that may be formed on the shield by uniting four roses.



5.—*The Wife of Bath's Riddles.*

The frolicsome Wife of Bath, when called upon to favour the company, protested that she had no aptitude for such things, but that her fourth husband had had a liking for them, and

she[Pg 28] remembered one of his riddles that might be new to her fellow pilgrims: "Why is a bung that hath been made fast in a barrel like unto another bung that is just falling out of a barrel?" As the company promptly answered this easy conundrum, the lady went on to say that when she was one day seated sewing in her private chamber her son entered. "Upon receiving," saith she, "the parental command, 'Depart, my son, and do not disturb me!' he did reply, 'I am, of a truth, thy son; but thou art not my mother, and until thou hast shown me how this may be I shall not go forth.'" This perplexed the company a good deal, but it is not likely to give the reader much difficulty.



6.—*The Host's Puzzle.*

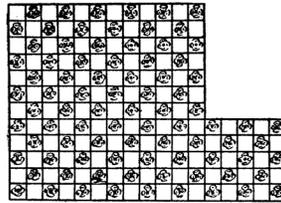
Perhaps no puzzle of the whole collection caused more jollity or was found more entertaining than that produced by the Host of[Pg 29] the "Tabard," who accompanied the party all the way. He called the pilgrims together and spoke as follows: "My merry masters all, now that it be my turn to give your brains a twist, I will show ye a little piece of craft that will try your wits to their full bent. And yet methinks it is but a simple matter when the doing of it is made clear. Here be a cask of fine London ale, and in my hands do I hold two measures—one of five pints, and the other of three pints. Pray show how it is possible for me to put a true pint into each of the measures." Of course, no other vessel or article is to be used, and no marking of the measures is allowed. It is a knotty little problem and a fascinating one. A good many persons to-day will find it by no means an easy task. Yet it can be done.

7.—*The Clerk of Oxenford's Puzzle.*

1	15	5	12
8	10	4	9
11	6	16	2
14	3	13	7

The silent and thoughtful Clerk of Oxenford, of whom it is recorded that "Every farthing that his friends e'er lent, In books and learning was it always spent," was prevailed upon to give his companions a puzzle. He said, "Of times of late have I given much thought to the study of those strange talismans to ward off the plague and such evils that are yclept magic squares, and the secret of such things is very deep and the number of such squares [Pg 30] truly great. But the small riddle that I did make yester eve for the purpose of this company is not so hard that any may not find it out with a little patience." He then produced the square shown in the illustration and said that it was desired so to cut it into four pieces (by cuts along the lines) that they would fit together again and form a perfect magic square, in which the four columns, the four rows, and the two long diagonals should add up 34. It will be found that this is a just sufficiently easy puzzle for most people's tastes.

8.—*The Tapiser's Puzzle.*



Then came forward the Tapiser, who was, of course, a maker of tapestry, and must not be confounded with a tapster, who draws and sells ale.

He produced a beautiful piece of tapestry, worked in a simple chequered pattern, as shown in the diagram. "This piece of tapestry, sirs," quoth he, "hath one hundred and sixty-nine small squares, and I do desire you to tell me the manner of cutting the tapestry into three pieces that shall fit together and make one whole piece in shape of a perfect square.

"Moreover, since there be divers ways of so doing, I do wish to [Pg 31] know that way wherein two of the pieces shall together contain as much as possible of the rich fabric." It is clear that the Tapiser intended the cuts to be made along the lines dividing the squares only, and, as the material was not both sides alike, no piece may be reversed, but care must be observed that the chequered pattern matches properly.

9.—*The Carpenter's Puzzle.*

The Carpenter produced the carved wooden pillar that he is seen holding in the illustration, wherein the knight is propounding his knotty problem to the goodly company (No. 4), and spoke as follows: "There dwelleth in the city of London a certain scholar that is learned in astrology and other strange arts. Some few days gone he did bring unto me a piece of wood that had three feet in length, one foot in breadth and one foot in depth, and did desire that it be carved and made into the pillar that you do now behold. Also did he promise certain payment for every cubic inch of wood cut away by the carving thereof.

"Now I did at first weigh the block, and found it truly to contain thirty pounds, whereas the pillar doth now weigh but twenty pounds. Of a truth I have therefore cut away one cubic foot (which is to say one-third) of the three cubic feet of the block; but this scholar withal doth hold that payment may not thus be fairly made by weight, since the heart of the block may be heavier, or perchance may be more light, than the outside. How then may I with ease satisfy the scholar as to the quantity of wood that hath been cut away?" This at first sight looks a difficult question, but it is so absurdly simple that the method employed by the carpenter should be known to everybody to-day, for it is a very useful little "wrinkle."

10.—*The Puzzle of the Squire's Yeoman.*

Chaucer says of the Squire's Yeoman, who formed one of his party of pilgrims, "A forester was he truly as I guess," and tells us that "His arrows drooped not with feathers low, And in his hand he bare a mighty bow." When a halt was made one day at a [Pg 32] wayside inn, bearing the old sign of the "Chequers," this yeoman consented to give the company an exhibition of his skill. Selecting nine good arrows, he said, "Mark ye, good sirs, how that I shall shoot these nine arrows in such manner that each of them shall lodge in the middle of one of the squares that be upon the sign of the 'Chequers,' and yet of a truth shall no arrow be in line with any other arrow." The diagram will show exactly how he did this, and no two arrows will be found in line, horizontally, vertically, or diagonally. Then the Yeoman said: "Here then is a riddle for ye. Remove three of the arrows each to one of its neighbouring squares, so that the nine shall yet be so placed that none thereof may be in line with another." By a "neighbouring square" is meant one that adjoins, either laterally or diagonally.



11.—*The Nun's Puzzle.*

"I trow there be not one among ye," quoth the Nun, on a later occasion, "that doth not know that many monks do oft pass the time in play at certain games, albeit they be not lawful for them. These games, such as cards and the game of chess, do they cunningly hide from the abbot's eye by putting them away in holes[Pg 33] that they have cut out of the very hearts of great books that be upon their shelves. Shall the nun therefore be greatly blamed if she do likewise? I will show a little riddle game that we do sometimes play among ourselves when the good abbess doth hap to be away."

C	A	D	G	E	R	B	U	R	Y
P	I	L	G	R	I	M	S		

The Nun then produced the eighteen cards that are shown in the illustration. She explained that the puzzle was so to arrange the cards in a pack, that by placing the uppermost one on the table, placing the next one at the bottom of the pack, the next one on the table, the next at the bottom of the pack, and so on, until all are on the table, the eighteen cards shall then read "CANTERBURY PILGRIMS." Of course each card must be placed on the table to the immediate right of the one that preceded it. It is easy enough if you work backwards, but the reader should try to arrive at the required order without doing this, or using any actual cards.

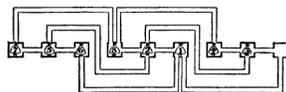
12.—*The Merchant's Puzzle.*

Of the Merchant the poet writes, "Forsooth he was a worthy man withal." He was thoughtful, full of schemes, and a good manipulator of figures. "His reasons spake he eke full solemnly. Sounding away the increase of his winning." One morning, when they were on the road, the Knight and the Squire, who were riding beside him, reminded the Merchant that he had not yet propounded the puzzle that he owed the company. He thereupon said, "Be it so? Here then is a riddle in numbers that I will set before this merry company when next we do make a halt. There be thirty of us in all riding over the common this morn. Truly we[Pg 34] may ride one and one, in what they do call the single file, or two and two, or three and three, or five and five, or six and six, or ten and ten, or fifteen and fifteen, or all thirty in a row. In no other way may we ride so that there be no lack of equal numbers in the rows. Now, a party of pilgrims were able thus to ride in as many as sixty-four different ways. Prithee tell me how many there must perforce have been in the company." The Merchant clearly required the smallest number of persons that could so ride in the sixty-four ways.



13.—*The Man of Law's Puzzle.*

The Sergeant of the Law was "full rich of excellence. Discreet he was, and of great reverence." He was a very busy man, but, like many of us to-day, "he seemed busier than he was." He was talking one evening of prisons and prisoners, and at length made the following remarks: "And that which I have been saying doth[Pg 35] forsooth call to my mind that this morn I bethought me of a riddle that I will now put forth." He then produced a slip of vellum, on which was drawn the curious plan that is now given. "Here," saith he, "be nine dungeons, with a prisoner in every dungeon save one, which is empty. These prisoners be numbered in order, 7, 5, 6, 8, 2, 1, 4, 3, and I desire to know how they can, in as few moves as possible, put themselves in the order 1, 2, 3, 4, 5, 6, 7, 8. One prisoner may move at a time along the passage to the dungeon that doth happen to be empty, but never, on pain of death, may two men be in any dungeon at the same time. How may it be done?" If the reader makes a rough plan on a sheet of paper and uses numbered counters, he will find it an interesting pastime to arrange the prisoners in the fewest possible moves. As there is never more than one vacant dungeon at a time to be moved into, the moves may be recorded in this simple way: 3—2—1—6, and so on.



14.—*The Weaver's Puzzle.*

When the Weaver brought out a square piece of beautiful cloth, daintily embroidered with lions and castles, as depicted in the illustration, the pilgrims disputed among themselves as to the meaning of these ornaments. The Knight, however, who was skilled in heraldry, explained that they were probably derived from the lions and castles borne in the arms of Ferdinand III., the King of Castile and Leon, whose daughter was the first wife of our Edward I. In this he was undoubtedly correct. The puzzle that the Weaver proposed was this. "Let us, for the nonce, see," saith he, "if there be any of the company

that can show how this piece[Pg 36] of cloth may be cut into four several pieces, each of the same size and shape, and each piece bearing a lion and a castle." It is not recorded that anybody mastered this puzzle, though it is quite possible of solution in a satisfactory manner. No cut may pass through any part of a lion or a castle.



15.—*The Cook's Puzzle.*

We find that there was a cook among the company; and his services were no doubt at times in great request, "For he could roast and seethe, and broil and fry, And make a mortress and well bake a pie." One night when the pilgrims were seated at a country hostelry, about to begin their repast, the cook presented himself at the head of the table that was presided over by the Franklin, and said, "Listen awhile, my masters, while that I do ask ye a riddle, and by Saint Moden it is one that I cannot answer myself withal. There be eleven pilgrims seated at this board on which is set a warden pie and a venison pasty, each of which may truly be divided into four parts and no more. Now, mark ye, five out of the eleven pilgrims can eat the pie, but will not touch the pasty, while four[Pg 37] will eat the pasty but turn away from the pie. Moreover, the two that do remain be able and willing to eat of either. By my halidame, is there any that can tell me in how many different ways the good Franklin may choose whom he will serve?" I will just caution the reader that if he is not careful he will find, when he sees the answer, that he has made a mistake of forty, as all the company did, with the exception of the Clerk of Oxenford, who got it right by accident, through putting down a wrong figure.



Strange to say, while the company perplexed their wits about this riddle the cook played upon them a merry jest. In the midst of their deep thinking and hot dispute what should the cunning knave do but stealthily take away both the pie and the pasty. Then, when hunger made them desire to go on with the repast, finding there was nought upon the table, they called clamorously for the cook.

"My masters," he explained, "seeing you were so deep set in the riddle, I did take them to the next room, where others did eat them with relish ere they had grown cold. There be excellent bread and cheese in the pantry." [Pg 38]

16.—*The Sompnour's Puzzle.*

The Sompnour, or Summoner, who, according to Chaucer, joined the party of pilgrims, was an officer whose duty was to summon delinquents to appear in ecclesiastical courts. In later times he became known as the apparitor. Our particular individual was a somewhat quaint though worthy man. "He was a gentle hireling and a kind; A better fellow should a man not find." In order that the reader may understand his appearance in the picture, it must be explained that his peculiar headgear is duly recorded by the poet. "A garland had he set upon his head, As great as if it were for an ale-stake."



One evening ten of the company stopped at a village inn and [Pg 39] requested to be put up for the night, but mine host could only accommodate five of them. The Sompnour suggested that they should draw lots, and as he had had experience in such matters in the summoning of juries and in other ways, he arranged the company in a circle and proposed a "count out." Being of a chivalrous nature, his little plot was so to arrange that the men should all fall out and leave the ladies in possession. He therefore gave the Wife of Bath a number and directed her to count round and round the circle, in a clockwise direction, and the person on whom that number fell was immediately to step out of the ring. The count then began afresh at the next person. But the lady misunderstood her instructions, and selected in mistake the number eleven and started the count at herself. As will be found, this resulted in all the women falling out in turn instead of the men, for every eleventh person withdrawn from the circle is a lady.

"Of a truth it was no fault of mine," said the Sompnour next day to the company, "and herein is methinks a riddle. Can any tell me what number the good Wife should have used withal, and at which pilgrim she should have begun her count so that no other than the five men should have been counted out?" Of course, the point is to find the smallest number that will have the desired effect.

17.—*The Monk's Puzzle.*

The Monk that went with the party was a great lover of sport. "Greyhounds he had as swift as fowl of flight: Of riding and of hunting for the hare Was all his love, for no cost would he spare." One day he addressed the pilgrims as follows:—

"There is a little matter that hath at times perplexed me greatly, though certes it is of no great weight; yet may it serve to try the wits of some that be cunning in such things. Nine kennels have I for the use of my dogs, and they be put in the form of a square; though the one in the middle I do never use, it not being of a useful nature. Now the riddle is to find in how many different ways I may place my dogs in all or any of the outside kennels so that the [Pg 40] number of dogs on every side of the square may be just ten." The small diagrams show four ways of doing it, and though the fourth way is merely a reversal of the third, it counts as different. Any kennels may be left empty. This puzzle was evidently a variation of the ancient one of the Abbess and her Nuns.



18.—*The Shipman's Puzzle.*

Of this person we are told, "He knew well all the havens, as they were, From Gothland to the Cape of Finisterre, And every creek in Brittany and Spain: His barque yclepéd was the *Magdalen*." The strange puzzle in navigation that he propounded was as follows.

"Here be a chart," quoth the Shipman, "of five islands, with the inhabitants of which I do trade. In each year my good ship doth sail over every one of the ten courses depicted thereon, but never may she pass along the same course twice in any year. Is there any among the company who can tell me in how many different ways I may direct the *Magdalen's* ten yearly voyages, always setting out from the same island?" [Pg 41]

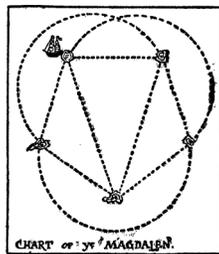
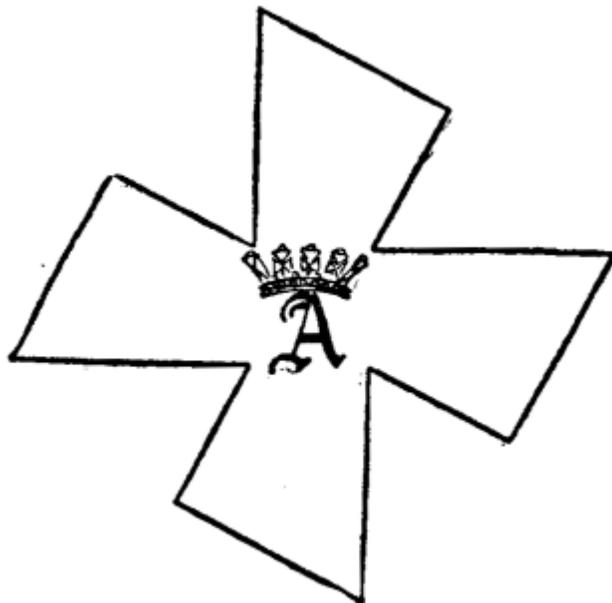


CHART of ye MAGDALEN

19.—*The Puzzle of the Prioress.*

The Prioress, who went by the name of Eglantine, is best remembered on account of Chaucer's remark, "And French she spake full fair and properly, After the school of Stratford-atté-Bow, For French of Paris was to her unknow." But our puzzle has to do less with her character and education than with her dress. "And thereon hung a brooch of gold full sheen, On which was written first a crownéd A." It is with the brooch that we are concerned, for when asked to give a puzzle she showed this jewel to the company and said: "A learned man from Normandy did once give me this brooch as a charm, saying strange and mystic things anent it, how that it hath an affinity for the square, and such other wise words that were too subtle for me. But the good Abbot of Chertsey did once tell me that the cross may be so cunningly cut into four pieces that they will join and make a perfect square; though on my faith I know not the manner of doing it."

It is recorded that "the pilgrims did find no answer to the riddle,[Pg 42] and the Clerk of Oxenford thought that the Prioress had been deceived in the matter thereof; whereupon the lady was sore vexed, though the gentle knight did flout and gibe at the poor clerk because of his lack of understanding over other of the riddles, which did fill him with shame and make merry the company."



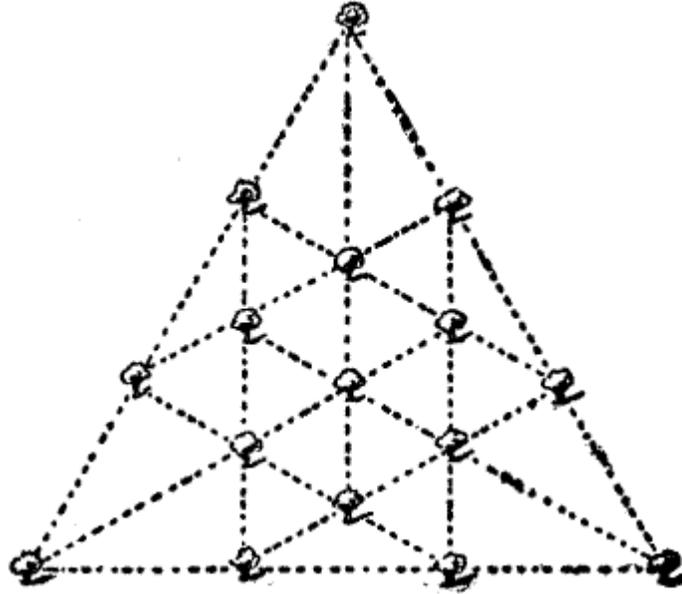
20.—*The Puzzle of the Doctor of Physic.*

This Doctor, learned though he was, for "In all this world to him there was none like To speak of physic and of surgery," and "He knew the cause of every malady," yet was he not indifferent to the more material side of life. "Gold in physic is a cordial; Therefore he lovéd gold in special." The problem that the Doctor propounded to the assembled pilgrims was this. He produced two spherical phials, as shown in our illustration, and pointed out that one phial was exactly a foot in circumference, and the other two feet in circumference.

"I do wish," said the Doctor, addressing the company, "to have the exact measures of two other phials, of a like shape but different in size, that may together contain just as much liquid as is contained by these two." To find exact dimensions in the smallest possible numbers is one of the toughest nuts I have attempted. Of course the thickness of the glass, and the neck and base, are to be ignored.



21.—*The Ploughman's Puzzle.*



The Ploughman—of whom Chaucer remarked, "A worker true and very good was he, Living in perfect peace and charity"—protested that riddles were not for simple minds like his, but he[Pg 44] would show the good pilgrims, if they willed it, one that he had frequently heard certain clever folk in his own neighbourhood discuss. "The lord of the manor in the part of Sussex whence I come hath a plantation of sixteen fair oak trees, and they be so set out that they make twelve rows with four trees in every row. Once on a time a man of deep learning, who happened to be travelling in those parts, did say that the sixteen trees might have been so planted that they would make so many as fifteen straight rows, with four trees in every row thereof. Can ye show me how this might be? Many have doubted that 'twere possible to be done." The illustration shows one of many ways of forming the twelve rows. How can we make fifteen?

22.—*The Franklin's Puzzle.*



"A Franklin was in this company; White was his beard as is the daisy." We are told by Chaucer that he was a great householder and an epicure. "Without baked meat never was his house. Of fish and flesh, and that so plenteous, It snowed in his house of meat and drink, Of every dainty that men could bethink." He was a hospitable and generous man. "His table dormant in his hall alway Stood ready covered all throughout the day." At [Pg 45] the repasts of the Pilgrims he usually presided at one of the tables, as we found him doing on the occasion when the cook propounded his problem of the two pies.

One day, at an inn just outside Canterbury, the company called on him to produce the puzzle required of him; whereupon he placed on the table sixteen bottles numbered 1, 2, 3, up to 15, with the last one marked 0. "Now, my masters," quoth he, "it will be fresh in your memories how that the good Clerk of Oxenford did show us a riddle touching what hath been called the magic square. Of a truth will I set before ye another that may seem to be somewhat of a like kind, albeit there be little in common betwixt them. Here be set out sixteen bottles in form of a square, and I pray you so place them afresh that they shall form a magic square, adding up to thirty in all the ten straight ways. But mark well that ye may not remove more than ten of the bottles from their present places, for therein layeth the subtlety of the riddle." This is a little puzzle that may be conveniently tried with sixteen numbered counters.

23.—*The Squire's Puzzle.*

The young Squire, twenty years of age, was the son of the Knight that accompanied him on the historic pilgrimage. He was undoubtedly what in later times we should call a dandy, for, "Embroideréd was he as is a mead, All full of fresh flowers, white and red. Singing he was or fluting all the day, He was as fresh as is the month of May." As will be seen in the illustration to No. 26, while the Haberdasher was propounding his problem of

the triangle, this young Squire was standing in the background making a drawing of some kind; for "He could songs make and well indite, Joust and eke dance, and well portray and write."

The Knight turned to him after a while and said, "My son, what is it over which thou dost take so great pains withal?" and the Squire answered, "I have bethought me how I might portray in one only stroke a picture of our late sovereign lord King Edward the Third, who hath been dead these ten years. 'Tis a riddle to [Pg 46] find where the stroke doth begin and where it doth also end. To him who first shall show it unto me will I give the portraiture."



I am able to present a facsimile of the original drawing, which was won by the Man of Law. It may be here remarked that the pilgrimage set out from Southwark on 17th April 1387, and Edward the Third died in 1377.

24.—*The Friar's Puzzle.*

The Friar was a merry fellow, with a sweet tongue and twinkling eyes. "Courteous he was and lowly of service. There was a man nowhere so virtuous." Yet he was "the best beggar

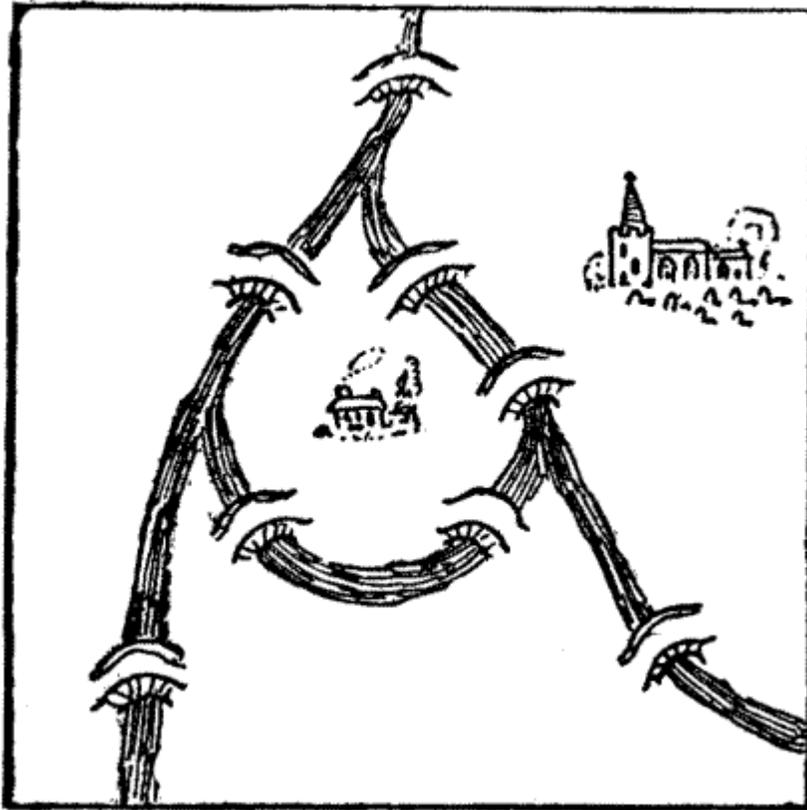
in all his house," and gave reasons why "Therefore, instead of weeping and much prayer, Men must give silver to the needy friar." He went by the name of Hubert. One day he produced four money bags and spoke as follows: "If the needy friar doth receive in alms five hundred silver pennies, prithe tell in how many different[Pg 47] ways they may be placed in the four bags." The good man explained that order made no difference (so that the distribution 50, 100, 150, 200 would be the same as 100, 50, 200, 150, or 200, 50, 100, 150), and one, two, or three bags may at any time be empty.



25.—*The Parson's Puzzle.*

The Parson was a really devout and good man. "A better priest I trow there nowhere is." His virtues and charity made him beloved by all his flock, to whom he presented his teaching with patience and simplicity; "but first he followed it himself." Now, Chaucer is careful to tell us that "Wide was his parish, and[Pg 48] houses far asunder, But he neglected nought for rain or thunder;" and it is with his parochial visitations that the

Parson's puzzle actually dealt. He produced a plan of part of his parish, through which a small river ran that joined the sea some hundreds of miles to the south. I give a facsimile of the plan.



"Here, my worthy Pilgrims, is a strange riddle," quoth the Parson. "Behold how at the branching of the river is an island. Upon this island doth stand my own poor parsonage, and ye may all see the whereabouts of the village church. Mark ye, also, that there be eight bridges and no more over the river in my parish. On my way to church it is my wont to visit sundry of my flock, and in the doing thereof I do pass over every one of the eight bridges once and no more. Can any of ye find the path, after this manner, from the house to the church, without going out of the parish? Nay, nay, my friends, I do never cross the river in any boat, neither by swimming nor wading, nor do I go underground like unto the mole, nor fly in the air as doth the eagle; but only pass over by the[Pg 49] bridges." There is a way in which the Parson might have made this curious journey. Can the reader discover it? At first it seems impossible, but the conditions offer a loophole.

26.—*The Haberdasher's Puzzle.*



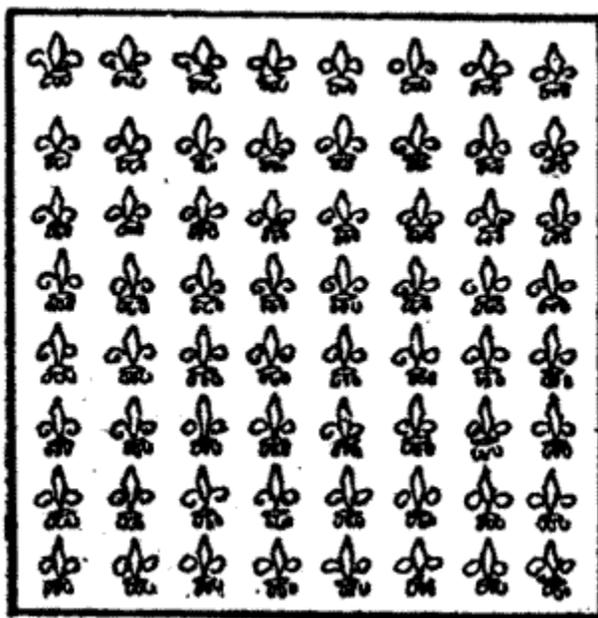
Many attempts were made to induce the Haberdasher, who was of the party, to propound a puzzle of some kind, but for a long time without success. At last, at one of the Pilgrims' stopping-places, he said that he would show them something that would "put their brains into a twist like unto a bell-rope." As a matter of fact, he was really playing off a practical joke on the company, for he was quite ignorant of any answer to the puzzle [Pg 50] that he set them. He produced a piece of cloth in the shape of a perfect equilateral triangle, as shown in the illustration, and said, "Be there any among ye full wise in the true cutting of cloth? I trow not. Every man to his trade, and the scholar may learn from the varlet and the wise man from the fool. Show me, then, if ye can, in what manner this piece of cloth may be cut into four several pieces that may be put together to make a perfect square."

Now some of the more learned of the company found a way of doing it in five pieces, but not in four. But when they pressed the Haberdasher for the correct answer he was forced to admit, after much beating about the bush, that he knew no way of doing it in any number of pieces. "By Saint Francis," saith he, "any knave can make a riddle methinks, but it is for them that may to rede it aright." For this he narrowly escaped a sound beating. But the curious point of the puzzle is that I have found that the feat may really be performed in so few as four pieces, and without turning over any piece when placing them together. The method of doing this is subtle, but I think the reader will find the problem a most interesting one.

27.—*The Dyer's Puzzle.*

One of the pilgrims was a Dyer, but Chaucer tells us nothing about him, the Tales being incomplete. Time after time the company had pressed this individual to produce a puzzle of some kind, but without effect. The poor fellow tried his best to follow the examples of his friends the Tapiser, the Weaver, and the Haberdasher; but the necessary idea would not come, rack his brains as he would. All things, however, come to those who wait—and persevere—and one morning he announced, in a state of considerable excitement, that he had a poser to set before them. He brought out a square piece of silk on which were embroidered a number of fleurs-de-lys in rows, as shown in our illustration.

"Lordings," said the Dyer, "hearken anon unto my riddle. Since I was awakened at dawn by the crowing of cocks—for which[Pg 51] din may our host never thrive—I have sought an answer thereto, but by St. Bernard I have found it not. There be sixty-and-four flowers-de-luce, and the riddle is to show how I may remove six of these so that there may yet be an even number of the flowers in every row and every column."



The Dyer was abashed when every one of the company showed without any difficulty whatever, and each in a different way, how this might be done. But the good Clerk of Oxenford was seen to whisper something to the Dyer, who added, "Hold, my masters! What I have said is not all. Ye must find in how many different ways it may be done!" All agreed that this was quite another matter. And only a few of the company got the right answer.

28.—*The Great Dispute between the Friar and the Sompnour.*

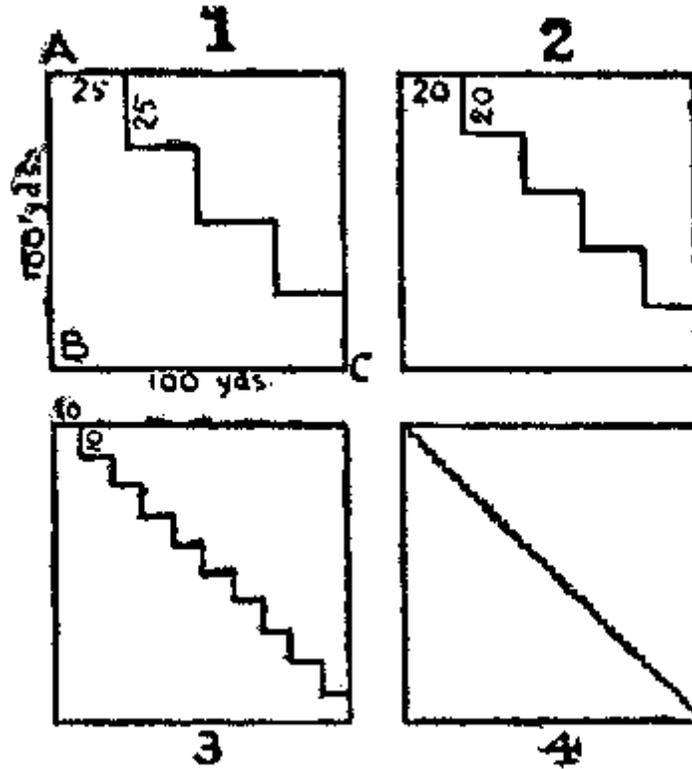
Chaucer records the painful fact that the harmony of the pilgrimage was broken on occasions by the quarrels between the Friar and the Sompnour. At one stage the latter threatened that ere they reached Sittingbourne he would make the Friar's "heart for to mourn;" but the worthy Host intervened and patched up a [Pg 52] temporary peace. Unfortunately trouble broke out again over a very curious dispute in this way.



At one point of the journey the road lay along two sides of a square field, and some of the pilgrims persisted, in spite of trespass, in cutting across from corner to corner, as they are seen to be doing in the illustration. Now, the Friar startled the company by stating that there was no need for the trespass, since one way was exactly the same distance as the other! "On my faith, then," exclaimed the Sompnour, "thou art a very fool!" "Nay," replied the Friar, "if the company will but listen with patience, I shall presently show how that thou art the fool, for thou hast not wit enough in thy poor brain to prove that the diagonal of any square is less than two of the sides."

If the reader will refer to the diagrams that we have given, he will be able to follow the Friar's argument. If we suppose the [Pg 53] side of the field to be 100 yards, then the distance along the two sides, A to B, and B to C, is 200 yards. He undertook to prove that the diagonal distance direct from A to C is also 200 yards. Now, if we take the diagonal

path shown in Fig. 1, it is evident that we go the same distance, for every one of the eight straight portions of this path measures exactly 25 yards. Similarly in Fig. 2, the zigzag contains ten straight portions, each 20 yards long: that path is also the same length—200 yards. No matter how many steps we make in our zigzag path, the result is most certainly always the same. Thus, in Fig. 3 the steps are very small, yet the distance must be 200 yards; as is also the case in Fig. 4, and would yet be if we needed a microscope to detect the steps. In this way, the Friar argued, we may go on straightening out that zigzag path until we ultimately reach a perfectly straight line, and it therefore follows that the diagonal of a square is of exactly the same length as two of the sides.



Now, in the face of it, this must be wrong; and it is in fact absurdly so, as we can at once prove by actual measurement if we [Pg 54] have any doubt. Yet the Sompnour could not for the life of him point out the fallacy, and so upset the Friar's reasoning. It was this that so exasperated him, and consequently, like many of us to-day when we get entangled in an argument, he utterly lost his temper and resorted to abuse. In fact, if some of the other pilgrims had not interposed the two would have undoubtedly come to blows. The reader will perhaps at once see the flaw in the Friar's argument.

29.—*Chaucer's Puzzle.*



Chaucer himself accompanied the pilgrims. Being a mathematician and a man of a thoughtful habit, the Host made fun of him, he tells us, saying, "Thou lookest as thou wouldst find a hare, For ever on the ground I see thee stare." The poet replied to the request for a tale by launching into a long-spun-out and ridiculous poem, intended to ridicule the popular romances of the day, after twenty-two stanzas of which the company refused to hear any more, and induced him to start another tale in prose. It is an interesting fact that in the "Parson's Prologue" Chaucer actually [Pg 55] introduces a little astronomical problem. In modern English this reads somewhat as follows:—

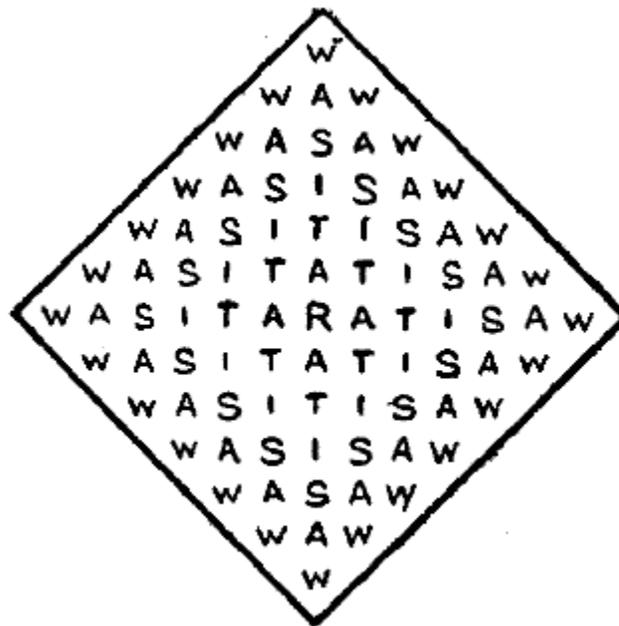
"The sun from the south line was descended so low that it was not to my sight more than twenty-nine degrees. I calculate that it was four o'clock, for, assuming my height to be six feet, my shadow was eleven feet, a little more or less. At the same moment the moon's altitude (she being in mid-Libra) was steadily increasing as we entered at the west end of the village." A correspondent has taken the trouble to work this out, and finds that the local time was 3.58 p.m., correct to a minute, and that the day of the year was the 22nd or 23rd of April, modern style. This speaks well for Chaucer's accuracy, for the first line of the Tales tells us that the pilgrimage was in April—they are supposed to have set out on 17th April 1387, as stated in No. 23.

Though Chaucer made this little puzzle and recorded it for the interest of his readers, he did not venture to propound it to his fellow-pilgrims. The puzzle that he gave them was of a simpler kind altogether: it may be called a geographical one. "When, in the year 1372, I did go into Italy as the envoy of our sovereign lord King Edward the Third, and while there did visit Francesco Petrarch, that learned poet did take me to the top of a certain mountain in his country. Of a truth, as he did show me, a mug will hold less liquor at the top of this mountain than in the valley beneath. Prythee tell me what mountain this

may be that has so strange a property withal." A very elementary knowledge of geography will suffice for arriving at the correct answer.

30.—*The Puzzle of the Canon's Yeoman.*

This person joined the party on the road. "God save,' quoth he, 'this jolly company! Fast have I ridden,' saith he, 'for your sake, Because I would I might you overtake, To ride among this merry company.'" Of course, he was asked to entertain the pilgrims with a puzzle, and the one he propounded was the following. He showed them the diamond-shaped arrangement[Pg 56] of letters presented in the accompanying illustration, and said, "I do call it the rat-catcher's riddle. In how many different ways canst thou read the words, 'Was it a rat I saw?'" You may go in any direction backwards and forwards, upwards or downwards, only the successive letters in any reading must always adjoin one another.



31.—*The Manciple's Puzzle.*

The Manciple was an officer who had the care of buying victuals for an Inn of Court—like the Temple. The particular individual who accompanied the party was a wily man

who had more than thirty masters, and made fools of them all. Yet he was a man "whom purchasers might take as an example How to be wise in buying of their victual."

It happened that at a certain stage of the journey the Miller and the Weaver sat down to a light repast. The Miller produced five loaves and the Weaver three. The Manciple coming upon the scene asked permission to eat with them, to which they agreed. When the Manciple had fed he laid down eight pieces of money and said with a sly smile, "Settle betwixt yourselves how the money shall be fairly divided. 'Tis a riddle for thy wits." [Pg 57]

A discussion followed, and many of the pilgrims joined in it. The Reve and the Sompnour held that the Miller should receive five pieces and the Weaver three, the simple Ploughman was ridiculed for suggesting that the Miller should receive seven and the Weaver only one, while the Carpenter, the Monk, and the Cook insisted that the money should be divided equally between the two men. Various other opinions were urged with considerable vigour, until it was finally decided that the Manciple, as an expert in such matters, should himself settle the point. His decision was quite correct. What was it? Of course, all three are supposed to have eaten equal shares of the bread.

