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# Science and Magic in Fragment V of the *Canterbury Tales*

Junko Asakawa

The *Squire's Tale* is incomplete, but it is followed by the Franklin's complimentary words to the Squire as if it is successfully finished and the Franklin is impressed and even inspired by the story and its teller; the Franklin markedly praises the Squire for not only his wit and eloquence but also his gentle behavior, confessing his yearning for "gentillesse," which he introduces in his tale as a theme. Even if, as a critic argued,<sup>1)</sup> the Franklin interrupts the Squire as the Host does about *Sir Thopas*, his aim is to express admiration for the young nobleman's tale. This development seems to indicate that Chaucer needs to create a strong connection between the two tales for some purpose. As Brian S. Lee has rightly pointed out, the two tales of Fragment V should be read as closely connected stories.<sup>2)</sup> In this essay, I will discuss the thematic continuity between the two tales whose common feature is the frequent references to marvels and an accompanying question about whether they are science or magic. Marvels are associated with science and magic in both tales, but the nature of magical devices is described differently, especially in their relation to science. The qualities of marvels in the *Squire's Tale* and how they are presented are first examined, which will help illustrate that the issue is passed on to the Franklin.

*The Squire's Tale* is a narrative of magical gifts which brings hope and

success. The gifts are the centerpiece of the First Part of the tale, in which the story has no further development in terms of events: the emissary knight does not ask for the king's daughter in marriage as the visitors do in the analogues.<sup>3)</sup> The knight with these four gifts excites "merveille" (87)<sup>4)</sup> but does not pose a threat to the people at the feast. The scenes of the tale are devoid of supernaturalism and other-worldliness. Instead, we see the gifts associated with science and technology. The Squire emphasizes his story's modernity in its difference from past romance by referring to "Gawayn, with his olde curteisye" (95) and "Launcelot" who "is deed" (287). The gifts total four instead of three in the analogous stories, there by enabling the narrator to refer to more areas of science. The gifts from the king of "Arabe and of Inde" (110) are a steed of brass, a glass mirror, a ring, and a naked sword. The effects of ring and mirror come to be proved in the Second Part through the experience of the king's daughter, Canace: she has a vision in her sleep "right for impressioun/ Of hire mirour" (371–72); owing to the power of the ring, she can communicate with birds and "make salves newe/ Of herbes precieuse and fyne of hewe/ To heelen with this hauk" (639–41). The falcon regains her lover after Canace's effective treatment, and Algarsyf, the king's son, wins Theodora as his bride with the help of the brass horse. The source of the power that brings these favorable outcomes is unfolded by the envoy knight himself.

The knight who brought the gifts first explains the virtues of the horse as follows:

This steede of bras, that esily and weel  
 Kan in the space of o day natureel—  
 This is to seyn, in foure and twenty houres—  
 Where-so yow lyst, in droghte or elles shoures,

Beren youre body into every place  
To which youre herte wilneth for to pace,  
Withouten wem of yow, thurgh foul or fair. (115–21)

The wording “o day natureel” indicates his knowledge of astrology, and the following explanatory note, “this is to seyn, in foure and twenty houres,” shows his awareness that the expression may need a gloss for “lewed peple”(221). The knight is as considerate as the author of *A Treatise on the Astrolabe*, who glosses the same phrase in the same way for his young son as the implied reader.<sup>5)</sup> He, then, reports how it was made so that people may not take the horse to be supernatural; the construction of the magical horse is made possible with the help of natural forces:

He that it wroghte koude ful many a gyn.  
He wayted many a constellacion  
Er he had doon this operacion,  
And knew ful many a seel and many a bond. (128–31)

The technology here is firmly grounded in astrology; the maker observes constellations and chooses the best one for the operation. We are not sure about the meanings of the terms “seel” and “bond,”<sup>6)</sup> but they seem to have some relation with astrology and other scientific operations.<sup>7)</sup> The horse-maker’s practice is similar to that of the Physician: “he was grounded in astronomye./ He kepte his pacient a ful greet deel/ In houres by his magyk natureel./ Wel koude he fortunen the ascendent/ Of his ymages for his pacient” (*General Prologue*, 414–18). Roger Bacon’s following passage might be informative about these practices: “everything newly made... receives the force of the heavens at the beginning of its existence,” which is

why in the “images, incantations, and characters, composed by means of the necessary constellation, the forces of the stars are received and retained, so that through them they can act on the things of this world.”<sup>8)</sup>

A newborn baby also receives the celestial forces, which is why nativity has special meaning. The narrator Squire characteristically starts his story by talking about “the feeste of his (Cambuscan’s) nativitee” (45) with conspicuously astrological terms:

The laste Idus of March, after the yeer.  
 Phebus the sonne ful joly was and cleer,  
 For he was neigh his exaltacioun  
 In Martes face and in his mansioun  
 In Aries, the colerik hoote signe. (47–51)

Chauncey Wood sees these lines delineating Cambuscan’s “nativitee” as being “by far the most astrologically oriented of all the astronomical periphrases in Chaucer” and points out the “excess in astrology” in this description to conclude that this “has to be parody.” This interpretation is based on the reading that the Squire is not an excellent tale-teller and that Chaucer created “a secondary figure of self-parody in the Squire.” Wood regards pilgrim Chaucer as the first figure.<sup>9)</sup> Chaucer, however, does not aim at another success in the *Squire’s Tale*, because the Squire enters the pilgrimage drama as a son of the respected Knight. They share an interest in astrology, but address different issues: while in the *Knight’s Tale* astronomical/ astrological phrases raise the problem of destiny, the Squire’s astrology poses the problem of science and magic. The Squire, I will argue, is showing his scientific knowledge to present a new type of romance that approaches science fiction.

Astrology was recognized as a branch of science in the Middle Ages as it was close to astronomy which was included in the liberal arts, and it was used in various scientific areas such as medicine. Therefore, Chaucer's knowledgeable audience might have accepted the knight's account and recognized the horse as a scientifically constructed vehicle.

However, this is not the case with some people at Cambuscan's court. Even after being given the knight's appropriate explanation of the wondrous horse, some people in the tale do not grasp his elucidation, relying upon their impression, and think "it was a fairye" (201). One of them fears the "steed of bras" linking it with the Trojan horse; another regards the horse as "An apparence ymaad by som magyk,/ As jogelours pleyen at thise feestes grete"(218–19). The narrator attributes these responses to the ignorance of unlearned people who "demeth comunly/ Of thynges that been maad moore subtilly/ Than they kan in hir lewednesse comprehende"(221–23). At the same time, there are also learned people who do not regard the gifts with awe and try to clarify the cause of the marvel, discussing the mirror rightly with reference to Alhazen, Vitello, and Aristotle who wrote of "queynte mirours and of perspectives" (234) because they "han hir bookes herd" (235), which might reflect the experience of Chaucer himself. We know that Chaucer's contemporary, Nicole Oresme, for example, discusses "the causes of marvels involving vision," quoting Alhasen, Witelo, and Aristotle.<sup>10)</sup>

People discussing the magic gifts in the tale are divided into two groups according to their level of learning: learned people who have extensive knowledge about various topics and unlearned people who "demen gladly to the badder ende" (224) owing to their ignorance. If either is satirized here, the latter should seem to be the likely target.<sup>11)</sup> If we are to look for ironic effects in the tale, they should be found in the descriptions of the latter group.<sup>12)</sup> The debate scene effectively highlights the learned people's

response to the marvels.

As if to strengthen the people's sophisticated understanding of the gifts, the Squire reports some people's extended discussion about wonder and causes: "But nathelees somme seiden that it was/ Wonder to maken of fern-asshen glas,/ And yet nys glas nat lyk asshen of fern;/ But, for they han yknowen it so fern,/ Therfore cesseth hir janglyng and hir wonder./ As soore wondren somme on cause of thonder,/ On ebbe, on flood, on gossomer, and on myst,/ And alle thing, til that the cause is wyl" (253–60). The message given here is that wonder is caused by a lack of knowledge. Naturally, when the "noble kyng" (302) sees the horse "trippe and daunce" (312) and is instructed by the knight on how to control it, he is not astonished at all; instead, he comprehends the subject with equanimity. On this stage where the horse has not flown yet, it can be easy for the king to accept the knight's explanation that an ingeniously constructed brass horse would be able to step and dance safely.

The problem is whether the narrator can be persuasive enough when something more extraordinary happens. We have been told that the four gifts are made through science and technology, because of which we have come to believe that they are not supernatural but explicable things. In the beginning of the Second Part of the tale, to strengthen our belief, the narrator starts making scientific comments again on various phenomena. He has knowledge of medicine: "it was tyme to lye adoun,/ For blood was in his domynacioun" (351–52) and "Ful were hire heddes of fumositee,/ That causeth dreem of which ther nys no charge" (358–59). He can observe the constellations: "As rody and bright as dooth the younge sonne,/ That in the Ram is foure degrees up ronne" (385–86). He can explain why the sun looks red and large then: "The vapour which that fro the erthe glood/ Made the sonne to seme rody and brood" (393–94). In sum, the narrator Squire seems

to be a well-informed person. Therefore, we should be ready to take his story as a naturally explicable phenomenon.

Canace has a vision in her sleep because of the “impressioun/ Of hire mirour” (371–72). The effect of the ring is far more obvious:

This faire kynges doghter, Canacee,  
That on hir fynger baar the queynte ryng,  
Thurgh which she understood wel every thyng  
That any fowel may in his leden seyn,  
And koude answeren hym in his ledene ageyn,  
Hath understonde what this faucon seyde,  
And wel neigh for the routhe almost she deyde. (432–38)

A human can communicate with birds through the power of a ring. It is difficult to believe this right away. One wonders about the source of the ring’s power. We remember that people, after seeing the ring, confess that they have never heard of such a wondrous example of “craft of rynges” (249) and add that “Moyses and kyng Salomon/ Hadde a name of konnyng in swich art” (250–51). It is suggested here that the ring is created by some art. Our question is whether we can consider the art of Moses and Solomon as a sort of science. If not, we will have to take it as magic.

Chaucer uses the term “magic” only once in the *Squire’s Tale*, when introducing unlearned people’s response to the horse: “it is rather lyk/ An apparence ymaad by some magyk,/ As jogelours pleyen at thise feestes grete”(217–19). This interpretation is turned down by the narrator, but we will see such illusions in the *Franklin’s Tale* where the term “magic” is used four times, including the expression “magic naturel.” In the *Squire’s Tale*, “queinte” is the modifier for the marvelous gifts: “Of queynte mirours and of



perspectives" (234), "And of Achilles with his queynte spere" (239), "Bothe of hir queynte ryng and hire mirour"(369), and "That on hir fynger baar the queynte ryng"(433). "Queynte" connected with "mirours" is defined by the *Middle English Dictionary* (henceforth, *MED*)<sup>13</sup> as "ingeniously made, skillfully wrought," whereas the same term connected with "ryng" and "spere" is defined by the *MED* as "supernatural; magical." The difference in the meanings reflects the difference of their contexts. The "queynte mirours" are related to authorities of science—Alhazen, the Arabian astronomer and optician; Witelo, the Polish mathematician; and Aristotle—and therefore suggest a scientific or technological meaning. However, the "queynte spere" is associated with Telephus and Achilles (238–39) from Greek mythology, and "queynte ryng" alludes to Moses and Solomon (250), who were reputed magicians in the Middle Ages—both of these contexts hint at the supernatural. If Moses's example is interpreted scientifically, "queynte ryng" could also gain a scientific meaning.

DiMarco suggests a passage from Roger Bacon's *Opus Majus* as "Chaucer's immediate source of his allusion to Moses's ring."<sup>14</sup> In the passage arguing for the study of science, Bacon introduces the episode of Moses, who used his skill of making images to leave his wife peacefully:

... he (Moses) made, since he was a skillful astronomer, two images on rings, one of forgetfulness which he gave to the woman, and the other of memory which he kept for himself, and thus he freely departed from her with his army and without war.<sup>15</sup>

Common to Moses's episode in *Opus Majus* and the falcon's story in the *Squire's Tale* is the ring's effects on the mind. Moses's wife forgets her husband and the tiercel, being repentant, returns to the falcon through the

power of the rings. The ring in the *Squire's Tale* is not sent to the tiercel, but the power of Canace's ring might have somehow affected him. Bacon includes Moses among "scientific men" together with Aaron, Solomon, Aristotle, and Ptolemy, and reports that Aristotle wished that "he should perform deeds of wisdom by means of the necessary constellations in the manner of Moses, who stirred the mind of the woman by means of the celestial forces received in the material."<sup>16</sup>) The theory suggested here is that people can make a material receive celestial forces to imbue it with a special power. If Bacon's above cited passage is the source for Chaucer, it can be a scientific explanation for the effect of Canace's ring. Chaucer's learned audience might have been aware that Moses's ring has a scientific basis.

Chaucer in the *Squire's Tale* shows only one part of the causes of the marvelous effects produced or expected to be produced by the gifts, which leaves scope for further discussion by a knowledgeable audience. However, no one will be able to give perfect scientific explanations to all the phenomena the four gifts bring about. The audience will be forced to enter into a realm of unreality through enlivened imagination, an effect that seems to be close to that of science fiction. Such effects cannot be attained if the cause of every marvel is expounded in detail.

I have referred to the two terms— science and magic—as if they are opposites, but in fact, it was not easy to distinguish clearly between science and magic in the Middle Ages. Chaucer presents a list of magic-related people in the *House of Fame*:

Ther saugh I pleye jugelours,  
Magiciens, and tregetours,  
And Phitonesses, charmeresses,  
Olde wicches, sorceresses,

That use exorsisacions,  
 And eke these fumygacions;  
 And clerkes eke, which konne wel  
 Al this magik naturel,  
 That craftely doon her ententes  
 To make, in certeyn ascendentes  
 Ymages, lo, through which magik  
 To make a man ben hool or syk. (III, 1259–70)

Here, clerks are treated differently from the other groups in that their magic is defined as natural magic, which is equivalent to science. Their practice is described in detail as making “ymages” to give medical treatment. This is similar to the making of the brass horse and the Physician’s practice, but is different from what “jogelours pleyen at thise feestes grete” (219). Therefore, we might tend to associate clerks with science and the others with magic. Clerks, however, are not always scientific.<sup>17)</sup>

When Bacon writes about Aristotle’s approval of the scientific practice of Moses’s example, he expresses his concern that it could be considered as magic:

Undoubtedly theologians and judges not instructed in such matters and seeing at the same time that evils as well as blessings can be produced in this way, neglect and abhor these things and reckon them as magic.

He then defends science:

Good men must have recourse to the laws although many lawyers take advantage of the laws by means of sophistries and frauds. [...] The study

of science is not, however, on this account to be condemned. For things from which good men produce various blessings are always turned to evil by evil men.<sup>18)</sup>

Those who have not learned science tend to consider scientific practice to be magic; misused science might be regarded as magic, and so if a clerk, who has studied proper legitimate science, puts his knowledge to wrong use, he can be called a magician. Therefore, the crucial point is the manner of which one uses it. The discussion on this theme continues in the following tale.

In the *Franklin's Tale*, astrology is closely related to magic. Aurelius, in his predicament, prays to Phoebus for help and expresses his wish to see a miracle using astrological terms:

Wherefore, lord Phebus, this is my requeste—  
Do this miracle, or do myn herte breste—  
That now next at this opposicion  
Which in the signe shal be of the Leon,  
As preieth hire so greet a flood to brynge  
That fyve fadme at the leeste it oversprynge  
The hyeste rokke in Armorik Briteyne;  
And lat this flood endure yeres tweyne...  
Lord Phebus, dooth this miracle for me.  
Preye hire she go no faster cours than ye;  
I seye, preyeth your suster that she go  
No faster course than ye thise yeres two.  
Thanne shal she been evene atte fulle alway,  
And spryng flood laste bothe nyght and day. (1055–62, 1065–70)

Aurelius does not expect that any human being will realize his wish. It is his brother who comes up with some solution: he recalls that he saw at Orleans a book of “magyk natureel”(1125), which “spak muchel of the operaciouns/ Touchynge the eighte and twenty mansiouns/ That longen to the moone”(1129–31) and is satisfied that if he can find at Orleans someone who is acquainted with “thise moones mansions”(1154) “or oother magyk natureel”(1155), Aurelius will be relieved. Fortunately, Aurelius and his brother find a clerk at Orleans who finally makes rocks disappear as requested. The Franklin narrates how the clerk accomplished this:

Whan he hadde founde his firste mansioun,  
 He knew the remenaunt by proporcioun,  
 And knew the arisyng of his moone weel,  
 And in whos face, and terme, and everydeel;  
 And knew ful weel the moones mansioun  
 Acordaunt to his operacioun,  
 And knew also his othere observaunces  
 For swiche illusiouns and swiche meschaunces  
 As hethen folk useden in thilke dayes.  
 For which no lenger maked he delayes,  
 But thurgh his magik, for a wyke or tweye,  
 It semed that alle the rokkes were awaye. (1285–96)

Apparently, the clerk’s practice is based on astrology, but the Franklin calls it “magik” (1295) and suggests that it includes illegitimate operations by making reference to “swiche illusiouns and swiche meschaunces/ As hethen folk useden”(1292–93). As the Franklin is not sure about the clerk’s performance, his explanation seems confused when he says, “nyght and day

he spedde hym that he kan/ To wayten a tyme of his conclusioun;/ This is to seye, to maken illusioun,/ By swich an apparence or jogelrye”(1262–65). Therefore, he has to add, “I ne kan no termes of astrologye”(1266). He does not know much about astrology, which is why he criticizes the operation: “atte laste he hath his tyme yfounde/ To maken his japes and his wrecchednesse/ Of swich a supersticious cursednesse”(1270–72). He holds the view about astrology that “swich folye...is nat worth a flye”(1131–32). This attitude toward astrology reminds us of Bacon’s statement about scientific practice: people who have not learned science tend to misconstrue it as magic. The Franklin is not a reliable narrator, as Anthony Luengo has pointed out,<sup>19)</sup> but he may be right in seeing the clerk as a magician.

One reason is that the clerk is a “tregetour.” The term “tregetour” is defined by the *MED* as “an entertainer, a sleight-of-hand artist, a juggler, an illusionist, etc.,” and, is similar to the term “jogelour” in the *Squire’s Tale*, which is defined by the *MED* as “a sleight-of-hand artist, prestidigitator, illusionist.” The Squire denies the possibility that the horse is “an apparence ymaad by som magyk,/ As jogelours pleyen at thise feestes grete”(218–19). In contrast to the attitude of the Squire, Aurelius’s brother relies on the “tregetour”: “My brother shal be warisshed hastily;/ For I am siker that ther be sciences/ By whiche men make diverse apparences,/ Swiche as thise subtle tregetoures pleye” (1138–41). Research has been conducted to contextualize the clerk’s performance: Anthony E. Luengo argues that the descriptions of the clerk’s magic are “instances of stage magic”<sup>20)</sup>; Laura Hibbard Loomis refers to secular plays in Paris as a context<sup>21)</sup>; and Mary Flowers Braswell suggests the connection between “contemporary automated devices” and the clerk’s magic.<sup>22)</sup> Whichever the case, the purpose is clear in that it should be to entertain people. However, Aurelius and his brother hope to exploit the technology to deceive someone else. This

is why Joyce Tally Lionarons finds in the tale “a profound distrust of the technological devices” created by the fact that “like magic, they can be used to deceive the ignorant.”<sup>23)</sup> The *Franklin’s Tale* illustrates that science and technology can be regarded as magic when they are used in the wrong ways.

The *Squire’s Tale* shows the following: (a) science and technology are the cause for marvel and they do not create confusion or trouble; (b) they bring about hope and success to people; (c) marvelous phenomena can be explained with ample knowledge; and (d) only ignorant people tend to be bemused and view science as magic. The Franklin highlights the theme of science and magic and tells a story about misused science and technology. In the late Middle Ages, the West saw notable advancements in science/technology, which may have fascinated Chaucer who composed *A Treatise on the Astrolabe* and several astrological poems. The two tales of Fragment V depict contrasting ways of dealing with science and technology.

## Notes

- 1) See particularly Charles F. Duncan, Jr., “Straw for Your Gentilesse: The Gentle Franklin’s Interruption of the Squire,” *Chaucer Review*, 5 (1970), 161–64. John W. Clark does not agree with Duncan’s interpretation: “Does the Franklin Interrupt the Squire?,” *Chaucer Review*, 7 (1972), 160–61.
- 2) Brian S. Lee observes that “Fragment V is so manifestly a unity that we do violence to it if, as too often, we read either the *Squire’s Tale* or the *Franklin’s Tale* in isolation.” “The Question of Closure in Fragment V of ‘The Canterbury Tales’,” *The Yearbook of English Studies*, 22, Medieval Narrative Special Number (1992), 190–200; see p. 190.
- 3) As for the analogues of the tale, see *Sources and Analogues of Chaucer’s Canterbury Tales* ed. by W. F. Bryan and Germaine Dempster (Chicago: The University of Chicago Press, 1941), pp. 357–76. Further, *Sources and Analogues of the Canterbury Tales*, Volume I, ed. by Robert M. Correale and Mary Hamel

- (Cambridge: D. S. Brewer, 2002), pp. 169–209.
- 4) All Chaucer citations are from *The Riverside Chaucer*, 3rd ed., gen. ed. Larry D. Benson (Boston: Houghton Mifflin, 1987).
  - 5) Part II. 7. The phrase “day natureel” also appears in *A Treatise on the Astrolabe*, Part II, 15, and *The Complaint of Mars*, line 122.
  - 6) The *MED* defines the term “seel” in this context as “a seal having some function in magic,” and the term “bond” is defined as “a force that dominates, controls, compels, constrains, or restrains.” See “sel” 4 (b) and “bond” 5 (a).
  - 7) *The Squire’s Tale*, A Variorum Edition of the Works of Geoffrey Chaucer, ed. by Donald C. Baker (Norman: University of Oklahoma Press, 1990), pp. 154–55.
  - 8) Roger Bacon, *The Opus Majus of Roger Bacon*, transl. by Robert Belle Burke, 2 vols. (Bristol: Thoemmes Press, 2000, reprinted from the 1928 edition), I. p. 412. As for the Latin text, see *The Opus Majus of Roger Bacon*, ed. by J. H. Bridges (Oxford, 1897), I, p. 396.
  - 9) Chauncey Wood, *Chaucer and the Country of the Stars* (New Jersey: Princeton University Press, 1970), pp. 97–98.
  - 10) Bert Hansen, *Nicole Oresme and the Marvels of Nature: A Study of his De causis mirabilium with Critical Edition, Translation and Commentary* (Toronto: Pontifical Institute of Medieval Studies, 1985), pp. 140–65. The quotation is from the title of the first chapter: “On the Causes of Marvels Involving Vision.”
  - 11) Corinne Saunders observes that “Chaucer cleverly evokes and satirizes contemporary debates surrounding magic and the supernatural.” See *Magic and the Supernatural in Medieval English Romance* (Cambridge: D. S. Brewer, 2010), p. 148.
  - 12) Corinne Saunders reads the debate as an irony: “Chaucer thus complicates the unquestioning acceptance of marvel so typical of romance through an emphasis on astrology, natural and occult sciences, and human debate and inquiry. The tale again seems to offer an ironic comment on romance naïveté, though its emphasis is very different from the parodic *Tale of Sir Thopas*” (p. 135). See “Magic, Science and Romance: Chaucer and the Supernatural,” in *Medieval English Literary and Cultural Studies. SELIM XV*, ed. by Juan Camilo Conde Silvestre and Ma Nila Vasquez Gonzalez (Murcia: Universidad de Murcia, 2004), pp. 121–43.



- 13) Hans Kurath ed., *Middle English Dictionary* (Ann Arbor: The University of Michigan Press).
- 14) Vincent DiMarco, "A Note on Canacee's Magic Ring," *Anglia* 99 (1981), 399–405.
- 15) Roger Bacon, *op. cit.*, p. 408. (As for the Latin text, see *The Opus Majus of Roger Bacon*, I, p. 392.)
- 16) *Ibid.*, pp. 407–09.
- 17) DiMarco points out that Roger Bacon "most unambiguously separated magic, which he saw as exclusively demonic, from science and technology" (p. 59). See Vincent DiMarco, "The Dialogue of Science and Magic in Chaucer's *Squire's Tale*," in *Dialogische Strukture/ Dialogic Structures*, ed. by Thomas Kuhn and Ursula Schaefer (Tubingen; Narr, 1996), pp. 50–68.
- 18) Roger Bacon, *op. cit.*, p. 410.
- 19) Anthony E. Luengo, "Magic and Illusion in *The Franklin's Tale*," *JEGP*, 77 (1979), 1–16.
- 20) *Ibid.*, p. 16.
- 21) Laura Hibbard Loomis, "Secular Dramatics in the Royal Palace, Paris, 1378, 1389, and Chaucer's 'Tregetoures'," *Speculum*, 33 (1958), 242–55.
- 22) Mary Flower Braswell, "The Magic of Machinery: A Context for Chaucer's 'Franklin's Tale'," *Mosaic*, 18 (1985), 101–10.
- 23) Joyce Tally Lionarons, "Magic, Machines, and Deception: Technology in the *Canterbury Tales*," *Chaucer Review*, 27 (1993), 377–86.