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*First page of Oeuvres diverses d'Alain Chartier et pièces anonymes, c. 1450,
said to depict the author at his desk
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NOTE

Elizabethan Technology: Thomas Watson's Steam Bath for the Relief of Gout

James Alsop

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Thomas Watson (1513-84), Doctor of Divinity and deprived Marian bishop of Lincoln, developed an expertise in the treatment of gout. In his practice of experiential medicine in East Anglia, he used an innovative steam chest: the patient sat in a cut-open empty wine pipe, surrounded by heated bricks, and covered with a sheet. This device, with its method of enclosed steam heat, contrasts sharply with prevailing renaissance therapeutic philosophy.

A description of an innovative steam chest is found within the medical collection in the British Library attributed to Dr. Thomas Watson (1513-84), Bishop of Lincoln.¹ Watson, who graduated B.A. from St. John's College, Cambridge, in 1534 and B.D. in 1545, was chaplain to Steven Gardiner, Bishop of Winchester and Lord Chancellor of England. He became Master of St. John's College in 1553 and received the degree of D.D. the following year. Watson was consecrated Roman Catholic Bishop of Lincoln in August 1557, but deprived on 26 June 1559 by the new Elizabethan regime. Over the succeeding decades he experienced frequent incarceration, and died in September 1584 while a prisoner in Wisbech Castle.² Watson developed a medical expertise focused upon the cure of physical ailments. This included the treatment of headache, back pains, sore eyes, worms, kidney stone, jaundice, lameness, swollen legs, and gout. Watson recommended five methods for the relief of gout, which generally involved wrapping the limbs in hot cloths soaked in preparations. These were standard treatments of that period. His first recommendation, however, was for an unnamed device to create a steam bath. It does not appear that Watson invented this apparatus; he entered the word "peroued" (proved) below the entry, indicating, as with many of the recommendations, that he had used the treatment successfully in his own practice.

1 Watson, "Certayne experiments," Sloane Ms. 62.

2 Wizeman, "The Theology," 258-80; Carlton, "Watson."

For the goutte or payn in the joints

Tak a great wyn pype vessel and cutt in mydle height that a mane may sit in it wth a litle stoole under his feete and heat as many bricke red hott as will lye wth in the tubb bottom. Let ther be Juey berys under the bricks and som about them, let the patient sitt in the tubbe naked and then couer him wth a sheet w^{ch} must be pinned hard about his neck and couer all over the tubbe that no heatte com forth and soe couer him wth as many clothes as he may suffer from his neck to the upper parte of the tubbe that no heat com forth and so continew the space of a good howre and then let the patient have clothes warmed to dry him selfe whill he is in the tubbe and so com forth and goo in to a bedd and ly all night resonable warme and he shall find great ease whether it be gowt or pain in the joynts.³

Watson's manuscript later came into the hands of the Elizabethan surgeon John Caryinton,⁴ a member of the Barber-Surgeons' Company of London,⁵ and, subsequently of other, unidentified, individuals, each of whom added additional remedies. No new material was added to the section on gout. Eventually, the manuscript passed into the possession of Sir Hans Sloane (1660-1753), President of the Royal Society of London.

Watson's steam tub is noteworthy in two respects. First, while there existed a long, much earlier, medical philosophy of gout pain relief using steam baths, this relied upon bathhouses or similar open spaces. Watson's device is the first known description of an enclosed, private, receptacle in therapeutic healing. Second, the history of gout treatment in renaissance and early modern England was largely directed away from the use of water, especially heated water. Overall, medical recourse to water externally, as in bathing, emphasized cold water, not hot water or steam.⁶ Even George Cheyne during the opening decades of the eighteenth century recommended cold-water bathing, every second day, in the treatment of gout "to brace the Nerves inwardly."⁷ During the Reformation period, priority

³ Watson, "Certayne experiments," fol. 11.

⁴ Watson, "Certayne experiments," fol. 16.

⁵ Young, *Annals of the Barber-Surgeons*, 591.

⁶ Thomas, "Cleanliness," 57.

⁷ Cheyne, *An Essay*, 114.

was assigned to physical and spiritual purity and chastity, and as a consequence sixteenth and early seventeenth century texts often devoted scant attention to water or steam in relation to the treatment of either the symptoms or the causes of the discomfort produced by gout.⁸ Pain relief was to be secured through sensible diet – the avoidance of excess in food and drink.⁹ In the Elizabethan era there existed isolated, scattered, brief commentary on the relief from gout pain afforded by hot mineral springs.¹⁰ However, the literature emphasized the need to evaluate the utility of individual springs for particular human bodies and specific maladies.¹¹ This attitude of mind worked against any general reliance upon hot springs in the treatment of gout. Indeed, the leading specialist in the treatment of gout for late seventeenth-century England, Dr. Thomas Sydenham, argued directly against the use of hot compounds or steam. He stated: “it is not so much the Physician’s as Nature’s Business to force Sweat.”¹²

Cheyne was most influential in promoting the curative or restorative properties of the hot springs at Bath. This, for the first time in early modern England (Watson’s device excepted), placed hot water at the center of gout therapy. Cheyne’s method relied upon copious consumption of Bath water with simultaneous emersion in the public baths. He sought to remove the “gouty Humours” via profuse perspiration. Externally, “the Bath Waters being hot, and consequently more active, may be drawn in [via the pores], and get thro’ the Pores of the Skin into the Blood Vessels.”¹³ Cheyne used the analogy of the soaked sponge: the human body was subjected

8 Classen, ed., *Bodily and Spiritual Hygiene*; Kosso and Scott, *Nature of Water*.

9 Walker, “A Gendered History,” 180-6.

10 Mullett, *Public Baths*, 13; Coley, “Cures,” 191.

11 For example: Bayly, *A Briefe Discours*, A2v, A3v.

12 Sydenham, “A Treatise,” 354-5. For Sydenham and his contemporaries, see Porter and Rousseau, *Gout*, 36-47.

13 Cheyne, *An Essay*, 54, 56.

to hot Bath water internally and externally, and the patient was then placed in bed under covering. Only this, he alleged, would produce the copious sweats necessary.¹⁴ Bishop Watson had aimed at the same result (without specifying his medical reasoning) solely through external use of concentrated steam.

Renaissance knowledge of the history of hot-water bathing in gout relief arose from the ninth-century Arabic text of the Iranian, Rhazes (Al-Razi). Hot water, or steam, baths figured as one of Rhazes's ten methods of treatment.¹⁵ There is no evidence in Bishop Watson's notebook that he knew of Rhazes's advice, or of the citations by Vesalius and other authors.¹⁶ Cheyne, as well, did not refer to this history; he limited himself to one brief, imprecise, sentence on how "Hot-bathing was [in high regard] amongst the Romans."¹⁷

In conclusion, Watson's description, with its "peroued" notation, suggests that there is more to the English history of gout relief pre-1700 than the standard narrative, focused upon the cultural framing of the disease, implies.¹⁸ The circumstances through which Watson became aware of this technology are not known, nor is the extent of use by Watson in his practice, nor of any subsequent utilization by the London surgeons or physicians who acquired "Certayne experiments." The steam bath was praised by a learned empiric healer (Watson) and the manuscript then circulated amongst surgeons (Caryington and unidentified successors). It is speculative to suggest that the devise originally arose within the same milieu, as a 'grass roots' experiential response to a medical problem. This must remain a speculation.¹⁹

14 Cheyne, *An Essay*, 55-6.

15 Ashtiyani, *et al*, "Rhazes," 108-12; Angrini, "An Insight," 53.

16 Tabatubaei, "Razes," 105-8.

17 Cheyne, *An Essay*, 58.

18 Porter, "Gout," 1-28; Porter, "The Ruin of the Constitution," 90-103; Benedek, "Gout in women," 1-22; Porter and Rousseau, *Gout*.

19 For the likelihood of some empirical knowledge in the diagnosis of gout, see: Churchill, *Female Patients*, 165.

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