

A METAPHOR COLLAPSES

[by John H. Lienhard](#)

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Today, a metaphor dies. The University of Houston's College of Engineering presents this series about the machines that make our civilization run, and the people whose ingenuity created them.

If you saw the movie *Shakespeare in Love*, you'll remember the nasty little boy who constantly played with mice. He was John Webster, who would grow up to be a seventeenth-century playwright. In 1612, Webster wrote this:

*The lives of princes should like dyals move,
Whose regular example is so strong,
They make the times by them go right or wrong.*

Mechanical clocks had become a metaphor for all the ordering principles of the universe - princes, the heavens, God himself. Webster's use of the image is so heavy-handed that he leaves me thinking about Mickey Mouse watches. I've said a lot about clock imagery in this series. Now historian Otto Mayr looks more closely at the way people thought about clocks.

By 1612, when Webster wrote his lines, the clock had been burrowing its way into people's minds for three centuries. We were just reaching the age of the telescope, the microscope, all the new precision instruments of embryonic modern science; and clock imagery was stretching to the point of obsession. Two years before Webster wrote those lines, John Donne had written a funeral poem,

*But must we say she's dead? may't not be said,
That like a Sundered clock is piecemeal laid,
Not to be lost, but by the maker's hand,
Repolished, without error then to stand.*

But even John Donne was about to back away from this kind of hyperbole. For England was growing leery of the great European clock-makers. She was beginning to object to casting God as a cosmic clock-maker. English authors, realizing how crude the clocks around them could be, were unwilling to take them as shadows of God's perfection. In a cynical line about love, Shakespeare himself disparagingly speaks of "A woman that is like a German clock."

To understand England's rather sudden disaffection with the clock metaphor we have to remember that the clock represented preordained regularity and order. It was powerfully expressive of the authoritarian mind, and in England the seeds of revolution were sown

early. Commoners like Newcomen and Watt were about to take over the technological means for creating their own physical well-being.

A century later that revolution would overturn the clockwork authority that had tried to control every aspect of European life. And the clock would no longer be summoned up as a mystic talisman. Sometime before 1625, an English nonconformist religious writer named John Robinson wrote this about clocks:

... The artisan leaves his worke being once framed to it selfe; but God by continuall influx preserves, and orders both the being, and motions of all Creatures.

God, in other words, did not just wind us up and walk away. We were indeed much better than a great big clock. And so was God.

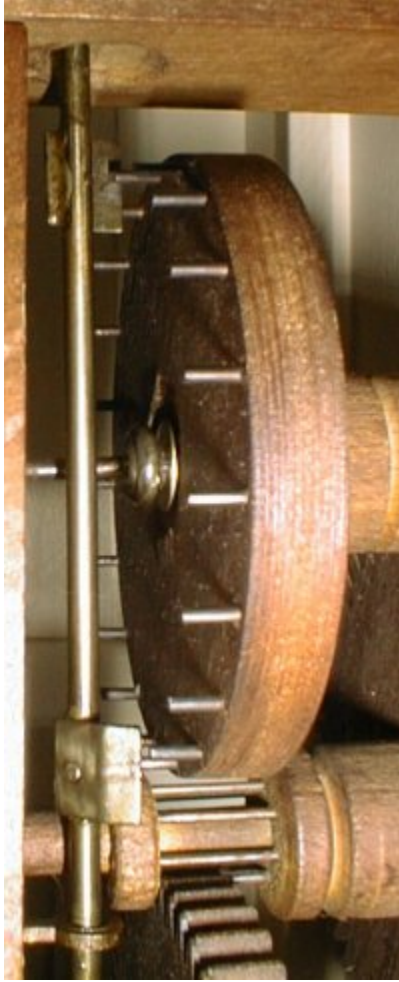
Small wonder that England was finally democratized by nonconforming Protestants like Robinson. They saw that it was time to leave clock metaphors behind and create a new world based on checks and balances -- one based on both human and Godly *intervention*.

I'm John Lienhard, at the University of Houston, where we're interested in the way inventive minds work.

(Theme music)

Mayr, O., *Authority, Liberty & Automatic Machinery in Early Modern Europe*. Baltimore, MD: The Johns Hopkins University Press, 1986. (These issues are to be found throughout the book, but see especially, Chapter 2.)

Several previous episodes deal with the mechanical clock and its metaphorical importance. See, for example, Episodes [72](#), [99](#), [1294](#), [881](#), [1307](#), [1383](#),



The escapement mechanism in a replica of an early seventeenth century foliot-and-verge clock, which was generously provided by Mike Helfrich