A CAR FOR ANNE BOLEYN

by John H. Lienhard

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Today, we offer Anne Boleyn an automobile. 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.

In 1533 wool-trader John Marmin had been operating in northern France. Now he was languishing in prison for failing to pay a debt. That year he petitioned Henry VIII to release him. As historian James Alsop tells Marmin's story, he points out that it was customary in those days to offer a bribe along with such a request. He quotes these words from Marmin's petition:

... in ... recompense of your goodness towards [me, I] will give unto your mastership a wagon, which will be a gift very meet for the Queen's grace. In the same wagon may sit two persons with ease, and it is to go without horse or other cattle. [It] cost 20 angel nobles in Flanders. In doing this you shall do a very charitable deed, and bind [me] to pray for you, [my] life enduring.

What a frustrating little item to find in the dusty records of 450 years ago! Poor Marmin, wanting to get out of jail, offers Henry VIII a horseless carriage for his new queen, Anne Boleyn, to ride about in. Of course we know of no form of horseless carriage from the world of 1533.

What's doubly odd is that the "wagon," as Marmin calls it, apparently did exist. The value he put upon it made it worth more than any conventional horse-drawn wagon. More than likely it was something he'd picked up in trade in the Netherlands -- a curiosity he'd set aside for this rainy day that'd now come into his life.

Marmin could hardly have been running a shell game. He was, after all, dealing with the King. So let's look closely at his words and take them at face value. Marmin excludes only animal power, but that leaves alternatives. We're safe to rule out steam power. Not even the most rudimentary steam engine would exist for another two hundred years. Human pedal power should probably be excluded as well. Even if a human could produce enough power, pedaled vehicles didn't appear until three hundred years later.

Many Medieval inventors had thought about other drive systems. Among them, vehicles to be driven by springs or falling weights, But those couldn't have stored enough energy to be practical.

However, this vehicle came out of Flanders, a country that ran from present day Belgium into France. It came out of the windmill-powered lowlands. I suspect this vehicle carried

either sails or a mobile windmill fan. Either could've been made to work, but only as long as the fickle winds favored it.

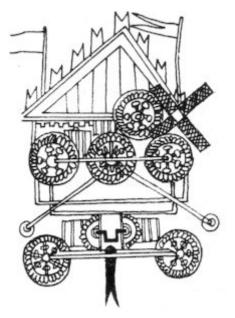
We have no record that Marmin's petition was accepted -- certainly no record that Anne Boleyn ever rode this vehicle. Still, this strange little byroad in English history reminds us that the dream of the horseless carriage has been alive for a long long time. Whatever Marmin's wagon really was, it reflects the gathering forces that would, in some yetremote future, give us railroads, bicycles and, at length, the automobile itself.

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

(Theme music)

Alsop, J. D., The Invention of a Self-Propelled Vehicle in the 16th Century. *Technology and Culture*, Vol. 22, No. 4, 1981, pp. 753-756.

This is a greatly revised version of Episode 79.



Crude conceptual sketch of a windmill-powered car by the medieval engineer, <u>Guido da Vigevano</u>, *ca*. 1335

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