



HOW TO DISEMPOWER A SLAVE

DEAN RUSSELL

THE YEAR 1787 covered two events that were to have a profound effect on the American people and the way we live. First, and by far the most important, the founders of this nation met in Philadelphia to draft a constitution for a new idea in government. Second, the free state of Maryland granted to Oliver Evans a patent on his drawings for a new idea in transportation, "a Steam-Carriage . . . to move . . . without the aid of animal force" on the roads of that state.

In September of 1787, the work of that Constitutional Convention was finished and submitted to the people of the 13 independent states for their approval. Some 18 months later, the new government came into formal existence. And

Dean Russell, formerly of the Foundation staff, is Professor of Economics at Rockford College. This article is extracted from the introduction to a study he has recently made on the automobile and its impact on the American economy and government.

Illustration: *The Bettmann Archive*

on December 14, 1792, Evans petitioned it to grant him a national patent to replace his several state patents for a "land carriage without cattle."

It took Oliver Evans another 13 years to actually construct his self-propelled road vehicle. Like the Constitution, its birthplace was also Philadelphia. On or near the tenth day of July 1805, his steam vehicle, the *Orukter Amphibolos*, moved ponderously up Market Street under its own power to Center Square. America's first "automobile" was on the road — and no newspaper bothered to record either the date or the event itself! For several days thereafter, Evans entertained the good people of the City of Brotherly Love by driving his vehicle around the square. Then, since his machine was built to operate on both land and water, he astounded them by driving it into the Schuylkill River. (That same idea was used

with great success some 137 years later by our armed forces in World War II.) In 1813, Evans predicted that "the time will come when the people will travel [in road carriages] . . . almost as fast as birds can fly."

Steam Power Development

While Oliver Evans built the first American road vehicle that ran under its own power, he was by no means the "father" of the automobile. A French artillery captain, Nicholas Cugnot, was ahead of him by 36 years. In 1769, he used a steam engine as the source of power for a self-propelled gun carriage. That clumsy, three-wheeled, barely workable vehicle has an excellent claim to first place in the direct ancestry of the magnificent automobile you drive today.

Actually, Hero of Alexandria may have started the whole thing about 130 years before the birth of Christ when he invented a sort of toy that was run by steam. But for the next 1,800 years, that magnificent source of power lay largely dormant. While several men in various countries experimented with steam power in the 1600's, it wasn't until 1705 that Thomas Newcomen developed the first workable steam engine. It was used to pump water from British coal mines. That engine, however,

was too primitive for general use. It remained for James Watt, beginning in 1762 and continuing through 1782, to perfect a practical and versatile steam engine that could be used as the source of power for factories, ships, trains, and automobiles.

Those steam engines were soon being used extensively by various English manufacturers — in flour mills, breweries, textile factories, and so on. William Murdock, the inventor of gas lighting, also used that source of power for a crude train that ran on oak rails in British quarries and coal pits in 1784. And in 1815, another Englishman, George Stephenson, converted Murdock's primitive seven-mile-an-hour locomotive into the early nineteenth century model that was soon doing 70 miles an hour on metal rails. The steam (and sail) ship "Savannah" crossed the Atlantic from Georgia to Liverpool in 1819. And one of Sir Goldsworthy Gurney's "steam automobiles" made a sustained journey from London to Bath and return, a distance of 200 miles at a speed of 15 miles per hour, in 1829. During the early 1830's, more than a hundred of those steamers were operating on the roads of England. Six of them were large passenger buses, built by Walter Hancock. In a period of three months, one of his buses traveled 4,200 miles and

carried 12,761 passengers, without an accident or serious delay.

By the mid-1830's, steam engines were the source of cheap power for an extensive industrial complex (manufacturing and transportation) in Western Europe and the United States. For better or for worse, the modern age of mass-produced and low-cost industrial products was in full swing.

An Incomplete Picture

Karl Marx (and others) reached the conclusion that it was unquestionably for the worse. And, admittedly, they produced some telling evidence and persuasive ideas to support their convictions. But perhaps they were so busy slashing at the individual trees that they had no idea at all of the vast forest with which they were dealing. They condemned the age of mechanical power because it brought women and children into the deplorable factories of that era — at meager wages and long hours of killing labor. But the picture they drew was far from complete because, among other things, they utterly ignored the part that the mechanical revolution was playing in the abolition of the most ancient curse of mankind — legalized human slavery.

We know that the institution of slavery is as old as the recorded

history of man. For example, it appears in the laws of Hammurabi. We know further that it continued to exist throughout most of the world until well into the nineteenth century. There is, however, no general agreement as to the principal cause of its abolition.

It is certainly safe to say that government itself wasn't responsible for abolishing human bondage. If a government wants to stay in business, its actions must generally reflect the attitudes and desires of the people under its authority. So the actual laws that were written against slavery were primarily acknowledgments of an existing situation that had developed from other causes.

Nor was education, as such, responsible for ending slavery; the educated classes throughout the ages had generally tolerated, justified, and supported the institution. If they hadn't, it couldn't possibly have continued to exist. And to say that the people in general were responsible for abolishing human bondage, still leaves unanswered their reasons for doing so. Was the answer Christianity? To some considerable extent, yes. But if that were the primary answer, one would still be faced with the awkward task of explaining why we Christians required some 1,900 years to complete the job. The *Columbia Encyclopedia* (and other

standard references) acknowledges the great part played by Christianity, and then goes on to the part played by machinery:

"The introduction of Christianity is generally thought to have had little effect [on slavery during the first few hundred years of the Christian Era], though it did mitigate conditions by inculcating principles of humanity, and it did give hope and courage to the long-oppressed classes. . . . In Western Europe, outright slavery had largely disappeared by the later Middle Ages, though it still remained in such manifestations as the use of slaves on galleys. . . . The British, the Dutch, the French, the Spanish, and the Portuguese all engaged in the [African] slave traffic [beginning in the sixteenth century and continuing well into the nineteenth]. . . . The British, in abolishing slavery, were primarily motivated by economic, not humanitarian, interests. While the institution produced great wealth under the mercantilist system, it became unprofitable with the rise of industrial capitalism."

H. G. Wells, in his *The Outline of History*, discusses the same idea:

"A vast proportion of mankind in the early civilizations was employed in purely mechanical drudgery. At its onset, power-driven

machinery did not seem to promise any release from such unintelligent toil. . . . [But as the mechanical revolution] went on, the plain logic of the new situation asserted itself more clearly. Human beings were no longer wanted as a source of mere indiscriminated power. What could be done mechanically by a human being could be done faster and better by a machine."

Economic Arguments Against Slavery

Whatever else slaves might be used for, it is dead certain that they could never be trusted with the responsibility of operating the power-driven ships, trains, automobiles, and factory machines that were becoming increasingly common in the western world of the late eighteenth and early nineteenth centuries. Thus the ever-present moral arguments against slavery were soon buttressed by the overriding economic arguments against it.

Beginning in 1833, Parliament rapidly outlawed the practice of slavery throughout the vast British Empire. (In the home islands themselves, a 1772 court decision had already decreed that the 15,000 or so imported slaves in Britain at that time were automatically free men because "as soon as a slave set his foot on the soil of the British islands he became free.") Slavery in the French Em-

pire was abolished in 1848. Russia liberated her slaves in 1861. Slavery in the Dutch Empire was outlawed in 1863. Brazil continued the practice until 1888. Even today, slavery continues to exist in various nations and areas where the primary source of power has long been the muscles of men and animals. (Information on present-day slavery may be secured from the United Nations Committee on Slavery.)

Of course, it could have been merely a remarkable coincidence that slavery diminished as mechanical sources of power increased. For example, what about slavery in the United States? Since this nation had as many or more machines than the others, why wasn't slavery voluntarily abolished here? The history of human bondage in the United States also lends support (with a reverse twist) to the theory that machines, rather than morality or education, may have been of primary importance in determining the issue of slavery. Roger Burlingame, in his *Backgrounds of Power* explains that reverse twist while discussing Eli Whitney's 1793 invention of the gin for cleaning cotton.

"The gin led directly to a social, economic, and political crisis. By increasing a hundredfold the productivity per worker in separating

short-staple cotton from its tenacious seeds, it produced an unbalance between cleaning and picking, planting and cultivation. The faster the cotton was cleaned, the more labor was required in the field. Thus slavery, moribund in 1790, became a dominant institution. . . ."

***A Machine that Prolonged
the Use of Slave Labor***

The idea of human slavery was completely foreign to the precepts on which this nation was founded. And when the Constitution of the United States was drafted, the founders wrote into it the first necessary steps toward its abolition. Thus it is probable that this country would have led all others in abolishing human slavery, if Whitney had invented a cotton picker along with his cotton cleaner.

Before the cotton gin, not much cotton was grown in the South because it was too expensive to clean by hand—even when the hands belonged to a slave. But Whitney's first crude machine enabled a man to clean 50 pounds of cotton a day, and rapid improvements to the machine soon doubled that amount. The resulting demand for cotton caused its cultivation to become highly profitable. But picking cotton was such a backbreaking and monotonous task that it was the

last job a free man would take. Since there was no machine to relieve the drudgery of the job — and since no education or skill was required — it automatically fell to slaves.

Before Whitney's invention, slavery was rapidly becoming both unprofitable and immoral — in Alabama as well as in Massachusetts. But with the gin, slave labor became highly profitable in the hot areas of the country where cotton could be grown. In due course, most educators, legislators, and churchmen in the South were soon defending or tolerating the "peculiar institution" — or were remaining discreetly silent about it.

A modern cotton picking machine that now performs the labor

of more than 80 hand pickers would have been of vast help in abolishing slavery by again making it uneconomic and thus permitting the long-suppressed moral ideas against it to take effect. But, most unfortunately, such a machine was not invented for more than a hundred years after the gin. Thus the issue of slavery in the United States was settled by a fratricidal war. The side with the best machines won, and the slaves were set free. That was as it should have been. But it is to be hoped that a few of the victors stopped to ponder the probability that it was more a matter of climate and economics, rather than morality and government, that determined which side was which.

LET'S NOT CHOOSE SLAVERY

"SLAVERY was a good life, if you had a good master. Just eat and sleep and play and take care of a small part of the farm."

This was Dan Hughes speaking in Louisville at the age of 112. He knew his subject; he was a

slave in Crittenden County, Kentucky, when the Civil War ended. To a generation which has grown up with the bloodhounds-and-blacksnakes concept of the slavery era in America, his words have a strange sound. They shouldn't.