

Outline – project proposal:

“The Electric Motor”

(Megan B., Mervin F., Matthew O.) 3/14/09

We propose to investigate, in general, the application of a new technology to the process of production, the effect of a new technology applied at the point of production. In particular we will look at the electric motor as that new technology.

We propose to investigate the electric motor for its historical significance in the economic development of the United States.

We will research and draw up a brief outline of the discovery of the universal physical principle of electro-magnetism—

-Benjamin Franklin (built first electric motor!); Oersted; Ampere/Weber

We will investigate the application of the principle to technology –

- Joseph Henry and Michael Faraday – (first electro-magnetic motor)

We will conduct a study of the effects of the application of this technology to industry –

- Belts vs. wires; portability of power; portability of tools

How did this transform the physical space-time of man’s activity? How is the human use of abiotic processes developed through use of this technology; in other words, how is the Noösphere changed by the application of this technology? Is man’s relationship with the Biosphere also changed by use of this technology (for example, in expanded freedom of location for industry, further from points of water flow or fossil fuel sources).

In what way does one measure the physical economic effects of the increase in productivity and output created by the introduction of this new technology to the production process, and to the national economy considered as a whole?

(The other side of this study, which will be taken up on Week Ten, is the investigation of the application of the principle of electro-magnetism into power distributed generally across the nation as a whole, through the construction of large-scale infrastructure, both for generation and for distribution. What was the role of government and credit in making this general distribution of electrical power possible? See, "Franklin Roosevelt's Economic Shock Front" S. Shields and Los Angeles LYM Panel on Shockwaves.)