Technology, Enterprise, and War

Most officers of the new railroads were army engineers first. Railroads and river steamboats were the logistics lifelines of military movement. The telegraph knitted Lincoln and his commanders together in “real time.” Businesses produced armored vests, armor-clad vessels, better mule-drawn ambulances, and canned food. The war saw the first steps to modern medical science. Men, businesses, and things.

OUTLINE

I. Technology: State of the 1860 Art
   A. Tools and Techniques to Conquer Space and Time, Refine Resources, etc.
   B. Kinds of Technology: Enhancement and Replacement
   C. Process of Development

II. The Technology and Warfare
   A. Technology Shapes Warfare; WAR Shapes Technology
   B. Military Technology is not Deterministic
   C. Military Technology Opens Doors
   D. Technology and War Interact, It Just May Not Be Obvious

III. The Technological Revolutions of the Era
   A. The Power Revolution — Steam Engine
   B. The Communications Revolution — Telegraph (Mass Circulation Media)
   C. The Transportation Revolution — Steamboat; Railroad
   D. The Organizational Revolution — Corporation; Financing; Information
   E. Nascent Scientific Revolution — basics of chemistry, metallurgy, Medicine

IV. The Technologies and The Civil War
   A. Railroad and War
   B. Telegraph and War
   C. Naval Technology, Ships and Shipbuilding
   D. Ordnance, Arms, and Tactics
   E. Organizational
      1. Staff and Service Corps (e.g., Ambulance Corps; General Hospitals)
      2. War Finance
      3. Information Acquisition, Analysis, Action
   F. Medical Knowledge, Techniques, Medicines, and Instruments; Prosthetics

Readings, Good and Complex:

Technology (General)

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1 My thanks to Alex Roland of the University of North Carolina at Chapel Hill for these axioms.
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