

the battle of Monmouth, the British offered fifty guineas for information leading to his recapture because they knew of his value to American manufacturing.³⁴

Leaders of the war effort recognized the need to privilege industrialization. Workers engaged in the production of iron were exempted from army service. John Jay, for example, believed that taxes should be collected in the form of "salt petre, wool or yarn" so as to "encourage manufactures." The Privy Council's 1774 prohibition on the exportation of gunpowder created severe munitions shortages. Congress launched an aggressive campaign to produce saltpeter, gunpowder's key constituent. Jay, for one, was pleased with the "encouragement given . . . to the manufacture of arms, powder, salt petre and sea-salt." The patriotic effort was echoed by the various states that through a variety of subsidies tried to promote the creation of an American munitions industry. Alas, efforts during the Revolutionary war to build up American iron and munitions manufacturing were frustrated by persistent labor shortages. The Continental Congress resolved in November 1777 to instruct U.S. representatives in Europe to entice "two or three persons, well acquainted with the making of gun-flints" to migrate to America so that they could "instruct persons in that business, and introduce into these states so useful a manufacture." Patriotic intellectuals also tried to help. Benjamin Rush published an essay on the making of saltpeter, reporting on manufacturing processes in Europe and calling for their emulation. Newspapers and magazines published detailed instructions, written by leading American scientific and technological authorities, on how to make saltpeter and gunpowder. In all these official measures and private initiatives, the theme of American technological difficulties and the need to emulate European technology was constant.³⁵

The outbreak of hostilities sealed the transformation in the in-

dustrial relationship between Britain and its North American colonies. The symbiosis of the early years gave way to a hostile competition over skilled workers and industrial know-how. By the time the shots heard around the world were fired in Concord and Lexington in April 1775, improving the level of American technology through the "illegal" appropriation of England's protected industrial technology became a prominent feature of the struggle for political and economic independence.