

local mill. Colonial investors thus enticed builders to come and settle in the colonies and introduce that technology. In this context London encouraged colonial technological development.

### Competitors within the Empire

When the colonies began to produce finished goods that competed with English and Scottish industries, the imperial mood swung against allowing free flow of machine and skilled workers across the Atlantic. As early as 1666 London began to check westward transfer of technology by prohibiting the export of frames for knitting to the colonies. The growing concern in London over technology diffusion found its way into official policy in the fundamental rules of the Empire—the Navigation Acts. The Wool Act of 1699 openly stated the crown's aim "to prevent the setting up of the woolen manufactures" in the colonies, and prohibited the migration of wool artisans to New World.<sup>7</sup> This restrictive policy was strengthened in the eighteenth century with the Hat Act of 1732 and the Iron Act of 1750. As the Board of Trade declared: "More trades [are] carried on and more manufacturers set up in the province on the continent of America to the northward of Virginia, prejudicial to the trade and manufactures of Great Britain, particularly in New England, than in any of the British colonies."<sup>8</sup>

By the middle of the eighteenth century, imperial ambivalence disappeared as the Board of Trade determined to privilege British manufacturers over colonial ones. The logic of mercantilism taught that attracting skilled artisans to the metropolis and keeping them there would improve its balance of trade with its European rivals—that all-important criterion of power and wealth in mercantilist political economy—while creating employment at home. By the same token, it was important to prevent the emigration of valuable artisans to the New World because in the mind of British mercantil-

ists this terminated their contribution to the production of exports. Imperial immigration restrictions, however, were difficult to enforce. Prospective migrants could be stopped only at the port of exit. Once the ship carrying a skilled immigrant departed from England to the New World the game was over. No immigrant was ever sent back on account of transferring restricted skills and no enforcement agents were sent to look for illegal immigrants and return them to England. Indeed, less than two years after the passage of the Wool Act a committee set up to examine its effectiveness reported that the colonies had ignored imperial restrictions on the development of local wool manufacturing and urged stricter enforcement of the measures.<sup>9</sup>

London prescribed specifically what industries could be established and what stages of the industrial production process could take place in America. It encouraged colonial shipbuilding, for this branch did not endanger a thriving British one. It looked favorably on American attempts to manufacture partly finished raw materials because increased production of these items supplemented shortages in the Empire's economy. It insisted, however, that most finished products be made in the British Isles. The Iron Act epitomized this approach. On the one hand Parliament abolished the duty on American-made pig iron and bar iron. On the other hand, it prohibited establishing factories in America for making finished iron products. Similarly, the production of potash (potassium carbonate), a forest-based industrial chemical made from wood ashes that was used in manufacturing glass and soap and in bleaching and dyeing, was greatly encouraged by London. During the first half of the eighteenth century England imported potash from Europe's forest regions. In 1751, however, Parliament removed the duty on American potash and British technical tracts were circulated to teach Americans how to produce it.<sup>10</sup>

The efforts of the Board of Trade to confine the colonial economy