Patent monopolies, however, were quite rare in seventeenth-century America. Colonial legislatures were torn between their desire to promote economic development through the granting of patents on the one hand, and principled hostility to monopolies on the other. Moreover, the economic effectiveness of such patents was minimal. Because colonial authorities exercised very limited control over their own territories and none over neighboring jurisdictions, patentees could not and did not expect effective enforcement of monopolies. Thus, colonial inventors preferred applying for awards for their efforts rather than trying to secure manufacturing monopolies. English patentees could not expect the automatic extension of their privileges across the Atlantic. In 1717, for example, Thomas Masters took the trip from Pennsylvania to England in order to establish his ownership of his wife's inventions of a maize-stamping mill and devices for working and staining straw and palmetto leaves for making women's bonnets. Masters protected his and his wife's interests by getting patents in "Several Plantations in America." His actions demonstrate the limits of the crown's ability to protect intellectual property in the colonies. The state of the colonial economies called for improvisation and adaptation of existing techniques to new circumstances, not industrial innovation. And as England began to formulate a consistent colonial policy around the turn of the eighteenth century, the question of governmental support for technological innovation in North America became part of the tangled web of imperial politics. [5]

Imperial policy regarding the diffusion of industrial technology to North America mirrored British confusion as to the nature of the exact relationship between the metropolis and its overseas outposts. The Board of Trade, established in 1696 to devise and enforce a coherent colonial policy, shifted back and forth between viewing the colonies as an integral element in the organic economy of the Empire and as competitors with the domestic economy of the British Isles. Considering the colonies as part of the British nation meant that the same rules and regulations that applied to the movement of technology between York and London should apply to the diffusion of knowledge from Liverpool to Philadelphia. If the colonies and mother country were economic competitors, however, then the restrictions on the outflow of technology to Europe applied. When the colonies were in their economic infancy, during the seventeenth and the early part of the eighteenth century, the metropolis favored the development of the colonies because continued dependence on the mother country for essentials undermined their ability to become profitable cash crop economies. Imperial policy allowed and even encouraged the recruitment of skilled workers and the transfer of technology to the New World. Recruiting agents and imperial companies openly tried to entice workers to come and help found the colonial economies. Thomas Bray, for example, wrote a passionate essay in 1697 in favor of establishing libraries throughout the British Empire to encourage the dissemination of religious and technical knowledge and thereby raise the productiveness and moral fiber of His Majesty's subjects.[6]

The Board of Trade also promoted colonial appropriation of technologies from England's rivals in Europe. Mills were central to the colonial economies as they were used for a variety of functions, from grinding grain to sawing logs into planks. Practically every colonial village built at least one water-powered mill. The art of building waterwheels for mills was highly developed in Denmark and Holland. Individual localities turned to offering material inducements for artisans to migrate. A mill site in Europe was very expensive and owning one was a mark of wealth. Some Massachusetts towns advertised mill sites for free and threw in free use of common land and wood for anyone who would build and operate a