

the task assigned, Dad Arakel was then appointed director of the new powder mill, with the privilege of exemption from payment of taxes and import duties.⁶⁸

Arakel *Amira* further invented a new machine that could perform four operations at once: it could crush the mass of powder, mince and sift it, and pulverize and sift the coal. As the quality of the powder manufactured at the Azadli mill proved superior to the one made at the old mill, the French technician, who had been managing the mill at Ay Stefano, was dismissed and Arakel was appointed director. "A selfmade mechanical genius,"⁶⁹ Dad Arakel invented several other machines or devices. Thus he built a wheeled-boat, similar to those on steamboats which did not exist at the time. At the request of Kapudan (Admiral) Hüseyin Pasha he invented, in 1802, a device to drain the bottom of ships, and another machine to cover the bottom of ships with copper instead of wood. In 1805 he built five looms to weave *çuha*, broad-cloth; the quality of the manufactured cloth was so high that the Sultan wore a coat made of that *çuha* and visited Arakel *Amira* at his factory at Azadli to express his satisfaction. During Mahmud II's period, Arakel also built a machine, called *hadde*, to laminate silver and gold ingots, which his son Simon further improved; it was later used in the mint by the Diuzians.⁷⁰ So great was Arakel's reputation that in 1810 the Shah of Iran invited him to his court. Understandably Mahmud did not allow Arakel to accept the invitation but permitted the Shah's representatives to examine his machines. Armenian sources state that the position of *barutcubaşi* was granted to Arakel *Amira* as a hereditary privilege.⁷¹ After Arakel's death in 1812 his eldest son, Simon *Amira* Dadian, inherited the position at both mills. Whether the position was hereditary or whether each sultan reappointed the Dadians, the fact remains that this family kept the management of the two powder factories under its control until 1889.

⁶⁸ **Boghosian**, *Dadian Gerdastane*, pp. 23-25.

⁶⁹ **Edward C. Clark**, "The Ottoman Industrial Revolution," *International Journal of Middle East Studies*, 5, no. 1 (January 1974): 70.

⁷⁰ **Boghosian**, *Dadian Gerdastane*, pp. 25-26.

⁷¹ *Ibid.*, p. 28; **G. Basmadjian**, "Dadian Gerdastani Djiughagrutiune" ["The Genealogy of the Dadian Dynasty"], *Banaser* (Paris), 1907, p. 121.