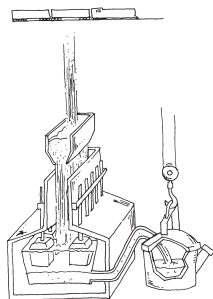
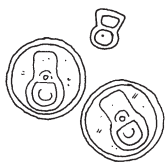


The Making of an Aluminum Can

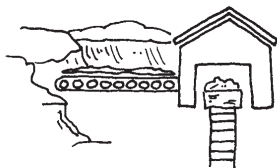
A. Smelters, or reduction plants, transform white alumina powder into molten aluminum. First, the powder is dissolved in a hot liquid salt solution in a “pot”, then an electric current flows into the pot, causing aluminum to settle to the bottom where it is removed. This process takes a large amount of energy.



B. The lids are fed through a high precision process where rivet making, scoring, and tabbing occur in consecutive operations.



C. Bauxite, the mineral from which aluminum is made, is mined from open pits called strip mines. Trees and other plants, rocks, and soil are first cleared away. Then the bauxite ore is extracted from the earth and taken to processing plants.



D. The can’s inside is spray coated with a thin, plastic lining to ensure that the can’s future contents will not touch or react with the aluminum.



E. A “neck” is made at the top of the can to reduce the diameter, and then fitted to the right size and shape for the lid



F. The aluminum is prepared for turning into products. For beverage cans and other products like foil and airplanes, aluminum ingots are rolled into sheets of varying thickness. For other products like tea kettles or car parts, ingots are melted and poured into molds.



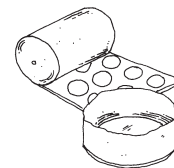
G. After crushers mash bauxite ore into small bits, the ore is heated to remove as much water as possible. At this stage a waste product called bauxite residue (red mud) is left behind.



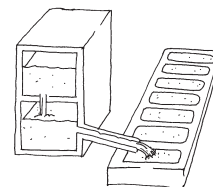
H. The cans and lids go to a bottling plant. There, the cans are filled with the beverage and the lids are secured onto the cans.



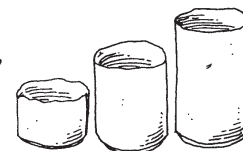
I. A coiled sheet of aluminum is fed through a press that punches out shallow cups, which will form the bottom and sides of the can.



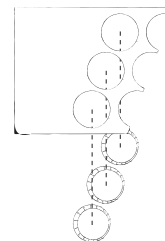
J. Molten aluminum is alloyed (mixed with other metals and elements) to make it stronger. Then it is poured into molds to form ingots. Ingots may be long rods, huge slabs weighing 20 tons (18,144 kg), or small bricks weighing only 4 pounds (1.8 kg).



K. The shallow cups are fed into an ironing press where successive rings pull and iron the sides, reducing the sidewall thickness to get a full length can. The bottom is domed for strength.



L. The can’s lids are stamped out of a pre-coated aluminum coiled sheet. A compound is added to assure a perfect seal between the can and the lid when they are attached



M. The crushed bauxite goes through a series of chemical reactions in a refinery, turning it into a fine white powder called alumina.

