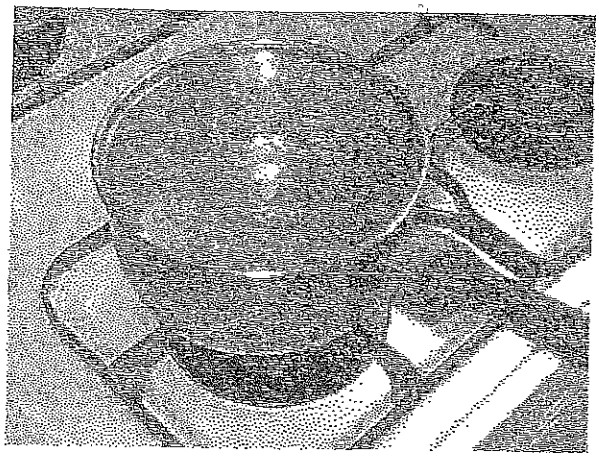

Convection

Your older sister asks you to boil some water so she can make some macaroni and cheese. She tells you she'll give you some if you help. You are hungry so of course you help! Your sister watches you as you put the pot of water on the stovetop. She shows you how to safely turn on the heat. You know you should cover the pot of water so that you use less energy but you are curious to see the water boil. As you watch the water boil you wonder how the heat moves through the water and makes all the water boil. Your sister explains that the water at the bottom of the pot that is directly above the heat source gets hot and rises to the top of the water. It then spreads out, cools, sinks, and is heated again in a continuous cycle. This continuous cycle of hot water rising, cooling, and sinking is known as a convection current. Believe it or not, without heat transfers by convection, there would be no wind, ocean currents, or mountains!