



Figure 22-14

The electrolysis of water often is carried out in a Hoffman apparatus. The electrolyte is added at the top. By momentarily opening each stopcock, the air in each arm can be let out. The arms are calibrated to measure the volume of each gas produced. (The volume of the hydrogen is twice the volume of the oxygen.)

Exercise

- 1.4 When gray powdered zinc and yellow sulfur are heated together, a flash of light is produced, and an explosion takes place. The resulting solid is white. It resembles neither sulfur nor zinc. Explain these observations. What do you think the white solid is?
- 1.5 Classify each of the following as element, compound, or mixture:
 - (a) copper
 - (b) blue ink
 - (c) ethyl alcohol (C_2H_5OH)
 - (d) salt water
 - (e) lemonade
 - (f) iodine
 - (g) sucrose (table sugar)
- 1.6 Pure aspirin, $CH_3COOC_6H_4COOH$, is a compound. Are all brands of pure aspirin the same? Explain your answer.

