In the pressure system, the engine-driven pump draws fuel from tanks located anywhere in the airplane and discharges it under positive pressure to the carburetor. This permits greater flexibility in tank utilization and minimizes vapor lock potential. A second or auxiliary fuel pump is used for priming, engine start, and as a backup in case of engine-driven pump failure.

As aircraft size increases, so does fuel system complexity. More sophisticated than the Cessna 152, the Beech M35 Bonanza is designed for longer trips and instrument flying. Its pressure-feed fuel system, shown in Figure 6-3, is somewhat more complicated than the C152's gravity-feed system, plus it has auxiliary fuel tanks.

When a pilot transitions from a single to a twin-engine aircraft, the increase in fuel system complexity becomes readily apparent. Multiengine aircraft are designed for long-range, instrument-flight, and emergency single-engine operation. The Beech B55 Baron, depicted in Figure 6-4, has a more complex fuel tank and fuel/engine selector arrange-

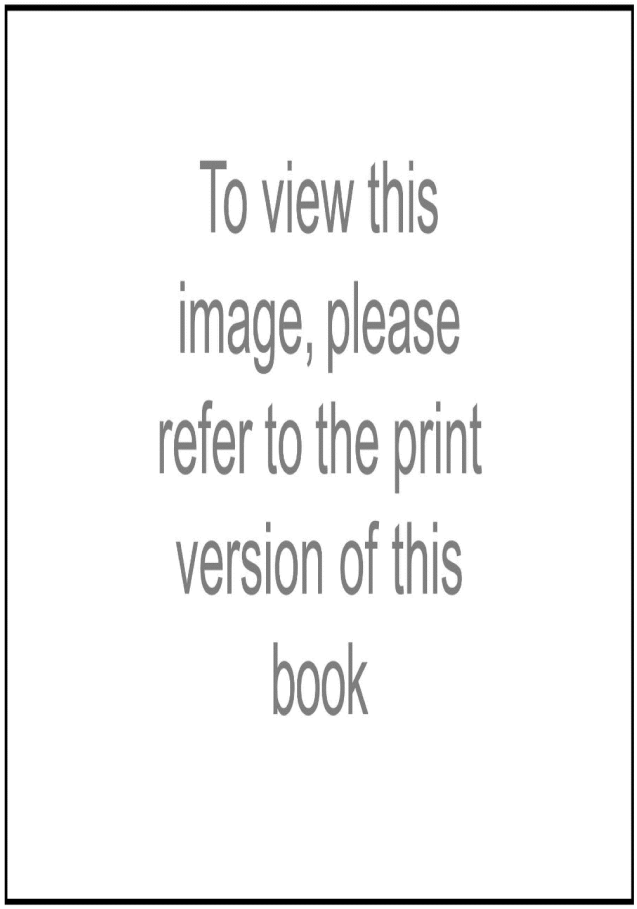

Fig. 6-3. *Beech Bonanza K35 and M35 fuel system schematic.*