5 Control

Control of bed bugs has tested man's ingenuity for centuries. Democritus' recommendation—hang the feet of a hare or of a stag at the foot of the bed—was typical of ancient remedies (Cowan 1865). Linnaeus (1750) gave the name *Actaea cimicifuga* to a plant, the bugbane, that has recently been confirmed as having insecticidal properties (Heal et al. 1950). In 18th-century England, professional exterminators concocted secret formulas guaranteed to destroy bugs. The best-known company for over 100 years was the Messrs. Tiffin and Son, "Bug-destroyers to Her Majesty and the Royal Family." With a sword at his side and a cocked-hat and bag-wig on his head, the elder Tiffin went about his work, catering, as he says, "only to the upper classes" (Cowan 1865).

Another exterminator, John Southall (1730), with the approval of Sir Hans Sloane and the Royal Society, published the first scientific treatise on the bed bug (Fig. 5–1), a work that was often quoted and seldom improved upon for 150 years. Southall learned the formula for his "Nonpareil Liquor" from a native while on a trip to the island of Jamaica. One hundred years later in an anonymous work (1828) entitled "Moyens surs et facile de détruire les punaises," 2 secret formulas were divulged and the subject of bed bug control was reviewed in great detail.

Early in the 20th century, with the continued growth of large cities and the war-time movement of people, bed bug infestations became a major problem. It was estimated that one-third of the dwellings in Stockholm were infested and 4 million people were affected in Greater London. In Germany 700 exterminators plied their trade. Albrecht Hase (1917), Heinrich Kemper (1936), and others at the Preussische Landesanstalt für Wasser-, Boden-, und Lufthygiene in Berlin-Dahlem carried out extensive work on control during this period. Traps were devised and rooms were heated to above 45°C to kill bugs. Oil sprays with or without pyrethrum were only partially effective because of the difficulty of reaching the bugs in their hiding places. Fumigation was recommended as the best means of control but only if done thoroughly by the individual using sulfur dioxide, or if done by licensed exterminators using ethylene oxide or cyanide. In Great Britain heavy naphtha was tested and found to be the most practical fumigant. Unfortunately, all