Noises in the Plumbing System

In designing the plumbing system for a new house, a plumbing contractor will endeavor to make it as noiseless as possible. Manufacturers of plumbing fixings are making every effort to reduce the noise connected with the operation of their equipment, and contractors have been very successful in eliminating much of the noise formerly associated with plumbing systems.

Because so much of the noise is due to water traveling at a high velocity, it follows that whatever can be done to reduce the velocity of the water will correspondingly reduce the noise in the system. It is for this reason that it is so important not to skimp on the size of the water supply piping. Larger pipe will not only provide a more adequate supply of water but will reduce noise.

There are three general types of noises found in some of the older plumbing systems. These are water hammer, whistling and chattering.

Water hammer is the thump in the piping heard when faucets or valves are turned off abruptly. There is no excuse for water hammer. It can usually be eliminated by the installation of an air chamber or short length of pipe in the wall where each supply pipe enters a plumbing fixture.

In some cases, however, the ordinary type of air chamber will not prevent water hammer. In such cases, special devices known as shock arrestors should be installed on the main line near the meter or as close as possible to the cause of the noise.
Water hammer should not be permitted to go on indefinitely. The noise is only an audible symptom of what is going on in the piping. The piping is being subjected to the wear and tear of a multitude of shock waves. The result will be leaks in piping, tanks or fixtures unless the condition is corrected.

Chattering in the piping may be caused by loose pipes, by pipes rubbing against a metal projection, by worn faucet washers or looseness of other inside parts.

Whistling is caused by the speed of water flowing through piping which is usually too small. A pressure-reducing valve will help as will a general straightening out of the plumbing system. Whistling is most common at bends and tees in the pipe.