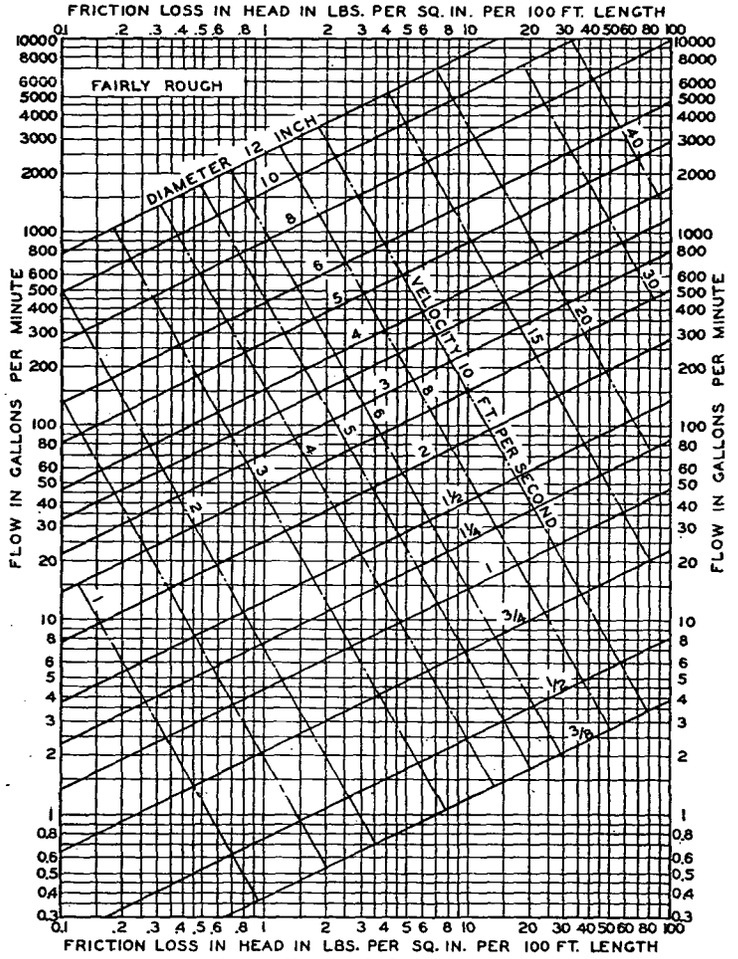

Fig. 4 .... Flow Chart for Fairly Rough Pipe[1]

mended ranges in capacities, are given in Table 3. Water authorities in many localities are now requiring compound meters for greater accuracy with varying flow. The local utility should be consulted regarding the requirement. Design data for compound meters will differ from the data in Fig. 6 and Table 3. Manufacturers should be consulted for data on exact pressure losses and capacities since these vary for meters of different internal design.

Fig. 7 shows the variation of pressure loss with rate of flow for various types of faucets and cocks, based on experimental data obtained at the State University of Iowa.

The loss of pressure through any fitting or valve can be

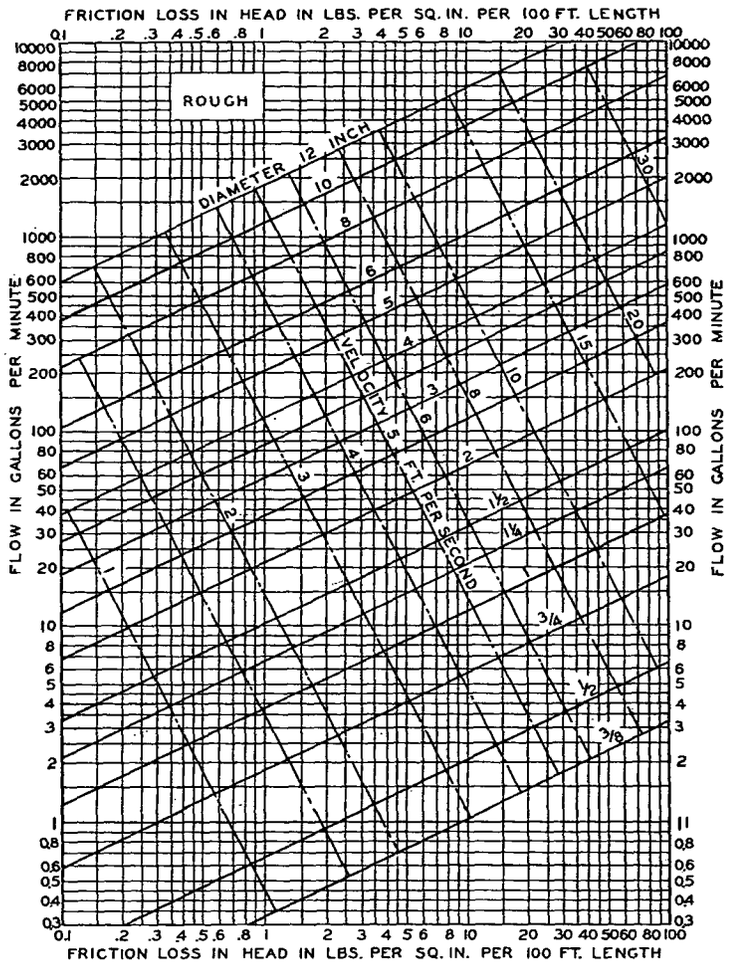

Fig. 5 .... Flow Chart for Rough Pipe[1]

expressed in pounds per square inch for any given rate of flow. Experience has shown, however, that the simplest method of expressing losses in fittings and valves is to use the concept of an equivalent length of straight pipe. Thus it has been found, for example, that a 1-in., 90-deg elbow introduces a loss equivalent to 2.2 ft of straight 1-in. pipe. Therefore, for each 1-in., 90-deg elbow, 2.2 ft of 1-in. pipe are added to the total length of 1-in. pipe.

Estimated pressure losses for pipe fittings and valves in terms of equivalent pipe length are shown in Table 4.

Table 5 lists the equivalent lengths for various special types of apparatus and fittings. The loss in water meters