Water Supply for Country Homes

The value of running water in the country homes, and the fact that not more than 12 per cent. of them anywhere have it, are good reasons surely for emphasizing the subject in a special manner. The inconvenience, and the danger to health of having to go out of doors in bitter winter weather to struggle with a frozen pump need not be put up with. And what about the fire menace?

An efficient water system, like any good machine on the farm, is a labor and time saving device and brings cheer and comfort to the user. It enables the housewife to use all the water she actually needs, and makes possible the installation in the home of those modern conveniences so much prized by every one. The value of an ever-ready supply of water for the stock, free from the delays of a frozen-up pump will be apparent, while in case of fire may be the means of saving your home and barn with their valuable contents.

There are three or four systems worthy of special mention and these are described briefly and illustrated in part below.

1. **Well Pump In-doors.**—If the lift to the pump cylinder does not exceed 20 or 25 feet, the pump may be placed inside the house. This arrangement is often possible, and it would save much labor, time, and severe exposure in the winter time. With the pump in good order one can easily draw the water 200 to 300 feet by hand power, especially if there is a check valve on the bottom of the suction pipe to keep the pump well primed all the time. This system will not give water on tap in the house but it will eliminate carrying water to the house. The well itself may be entirely closed in, with the exception of a small turned-over ventilating pipe, which will further guard the water against surface dirt.

Figure 1 shows a well pump installed at the right of the kitchen sink. Figure 1 also shows the Attic Tank system installed.

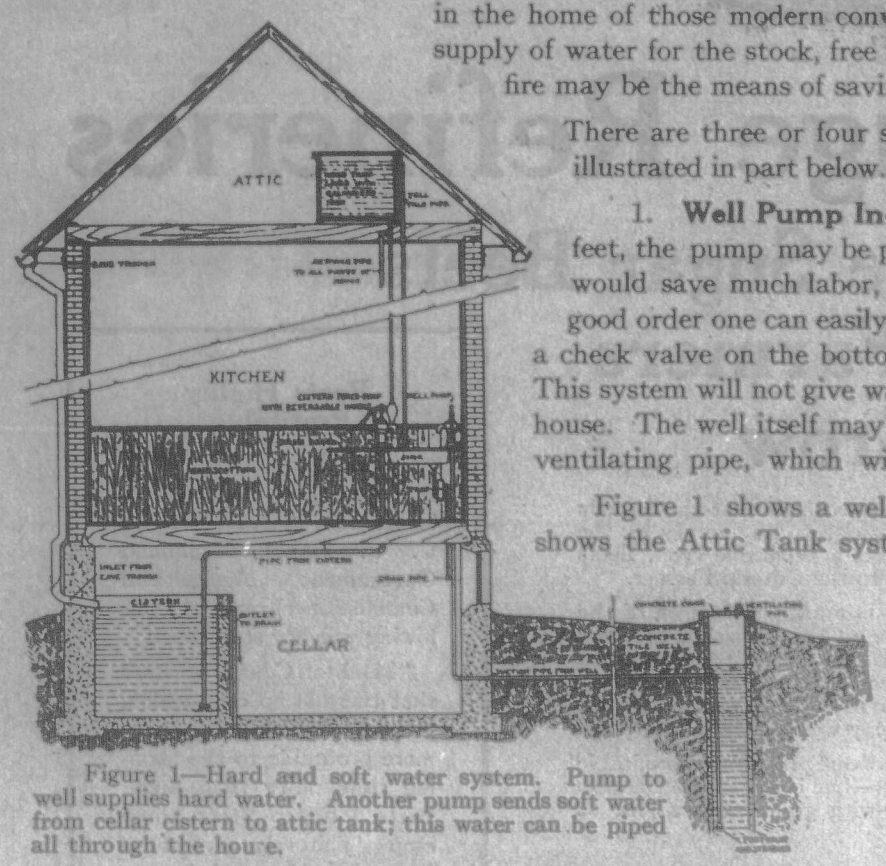


Figure 1—Hard and soft water system. Pump to well supplies hard water. Another pump sends soft water from cellar cistern to attic tank; this water can be piped all through the house.

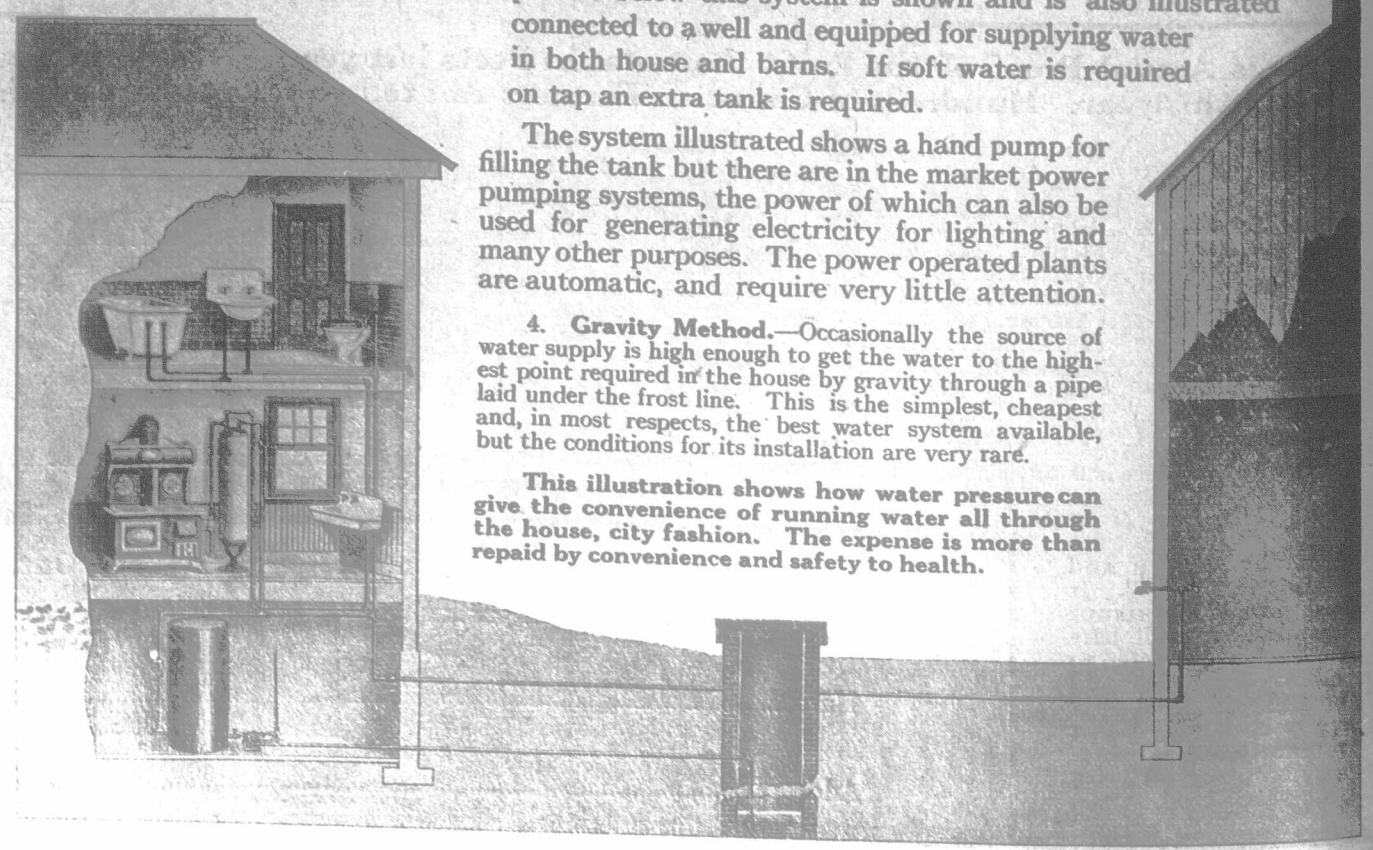
2. **The Attic-tank Method.**—The chief feature of this system is a storage tank in the attic for holding a few days' supply of water. A wooden tank about 3′ x 3′ x 3′ and lined with galvanized iron gives good results. It may be filled by a power or a hand-pump with soft water from a cistern in the cellar for washing and bathing purposes, and also for flushing the water closet. Sometimes rain water can be run into this tank from the roof. This method is not, however, very satisfactory for storage of drinking water. Figure No. 1 shows this installation with pump in kitchen.

3. **Compression Water System.**—This consists of an air-tight metal tank about 30″ x 6′ for storing water and compressed air, a force-pump for filling it, and the necessary accessories as pressure gauge, water-glass gauge, pipe and connections, valves etc. This outfit is generally placed in the cellar. The water compresses the enclosed air in the tank and makes it a power to drive the water out whenever a tap is opened anywhere in the service pipes. The tank should be kept about two-thirds full when a pressure of 45 lbs. will result. In the picture below this system is shown and is also illustrated connected to a well and equipped for supplying water in both house and barns. If soft water is required on tap an extra tank is required.

The system illustrated shows a hand pump for filling the tank but there are in the market power pumping systems, the power of which can also be used for generating electricity for lighting and many other purposes. The power operated plants are automatic, and require very little attention.

4. **Gravity Method.**—Occasionally the source of water supply is high enough to get the water to the highest point required in the house by gravity through a pipe laid under the frost line. This is the simplest, cheapest and, in most respects, the best water system available, but the conditions for its installation are very rare.

This illustration shows how water pressure can give the convenience of running water all through the house, city fashion. The expense is more than repaid by convenience and safety to health.



BE SURE YOUR WELL WATER IS PURE.

If you are at all suspicious that the drinking water is impure write Professor D. H. Jones, Bacteriological Department, O. A. College, Guelph, Ontario. Prof. Jones will send a sterile bottle with directions for obtaining a sample. Upon receipt of the sample a test will be made free of charge and the analysis will be promptly returned. Meanwhile the water may be disinfected as follows: Dissolve a level teaspoonful of chloride of lime in a cup of water Dilute this quantity with three cups of water. Then add a teaspoonful of the diluted solution to each two gallons of water and stir thoroughly. The water thus treated will be without taste or odor and safe for human consumption.

For practical and detailed information on (1) the relative value and uses of different kinds of pumps or (2) the installation of water systems for house or barn, or upon any other point of practical interest regarding wells, pure water or water equipment write the office of the Commissioner of Agriculture, Parliament Buildings, Toronto.

A Bulletin is being prepared upon this subject and will be ready for distribution in the near future. Send in your name for a free copy.

The Ontario Department of Agriculture

Parliament Buildings
TORONTO

SIR WM. H. HEARST
Minister of Agriculture

DR. G. C. CREELMAN
Commissioner of Agriculture

ONTARIO