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FARM HOME WATER SUPPLY SYSTEMS

II. KITCHEN AND BATHROOM INSTALLATIONS

By

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II. Kitchen and Bathroom Installations

A great many farmers hesitate to install the very simplest of water systems because they feel that these are not quite what they want as a permanent system, but prefer to wait until a better system can be afforded. As a result, in a great many cases, none is provided and the family does without this necessity. The inexpensive system shown on the diagram in this circular has been designed with this idea in mind. As shown, each system is like that in Fig. 1. with additions. These additions can be made at any time and without discarding a single piece of equipment or tearing down any of the first parts to add the others.

The Pump

The pump shown is for shallow wells only, that is for wells in which the water stands at a vertical distance not greater than 22 feet from the pump. For distances between 22 feet and 32 feet a pump with a "set length" cylinder should be purchased. To carry out this idea of successive additions to the system shown in Fig. 1., this pump must be a force pump and not a lift pump. Where a hydraulic ram can be installed or a gasoline engine driven pump is to be used the pump at the sink may be omitted and the tank filled by these means.

The Storage Tank

The storage tank, located above the kitchen, as shown in Figs. 2, 3 and 4 may be of any material and size. In the case of large tanks, precautions should be taken to see that proper support is provided. Usually this will be obtained if the tank is placed on the ceiling joists just over a room partition. Sheet metal tanks, sold as stock tanks make very desirable storage tanks. An overflow running to the sink must be provided. Care in making the connection to the tank should be exercised of a leak will result.

The Hot Water Tank

The tank used for hot water is a 30 gallon range boiler, made of galvanized iron and provided with a stand. The cold water connection should be made to that connection in the top of the tank which has a pipe extending down into the tank and the hot water connection to the other. The water may be heated by connecting the tank to the water front in a kitchen coal or wood stove or to a kerosene heater, or to both. A plug in the bottom of the hot water tank should always be provided for draining the system to prevent freezing or to remove sediment.

Adding Other Parts

In Fig. 2 are shown two Tees which are of no use to the system shown in that diagram but should be put in when the system is being made so that additional pipe to add the hot water connections can be made when changing to the system shown in Fig. 3 without disturbing the present arrangement. Plugs are used in these Tees until the additions are made. The same conditions will be found illustrated in Fig. 3, allowing the bathroom pipes to be installed later, as shown in Fig. 4. In Fig 2 a valve "V" is shown near the pump. This is a horizontal check valve and is necessary as it allows the water to go from the pump to the storage tank, but not return through the pump. Water connections for including an inside toilet may be made by joining on to the cold water piping at any place. In case a toilet is to be added later, a Tee and a plug should be used at "X" instead of the elbow. The drains from the sink, bath tub and wash stand may be of 1-1/4 inch galvanized pipe but that from the toilet must be of 4 inch soil pipe. Whenever such a toilet is used a septic tank is recommended. (See Agronomy Information Circular No. 15.)

Materials Needed

The following is a list of the materials needed to complete the parts of the systems shown. Parts not shown include pipe and connections for the drains and pipe from the well to the pump.

Description of Material	For the Systems Illustrated in: Fig. 1	Fig. 2	Fig. 3	Fig. 4
1½ inch galvanized pipe(sink to drain)	#	#	#	#
1¼ inch galvanized pipe(well to pump)	#	#	#	#
3/4- inch galvanized pipe pump to tank		#	#	#
Force pump	1	1	1	1
Porcelain lined sink, 18"x30" or larger with 1½ inch trap fitting	1	1	1	1
1½ inch sink trap with cleanout plug	1	1	1	1
Wall bracket for sink	2	2	2	2
1¼ inch foot valve	1	1	1	1
Storage tank		1	1	1
3/4 inch tank connection		1	1	1
3/4 inch faucet		1	2	6
3/4 inch unions		1	1	1
3/4 inch horizontal check		1	1	1
3/4 inch Tee		3	3	6
3/4 inch galvanized pipe (hot water)		#	#	#
30-gallon galvanized hot water tank and stand			1	1
3/4 inch galvanized tank connections			2	2
3/4 inch galvanized elbows		2	7	9

#These lengths will vary with each installation.

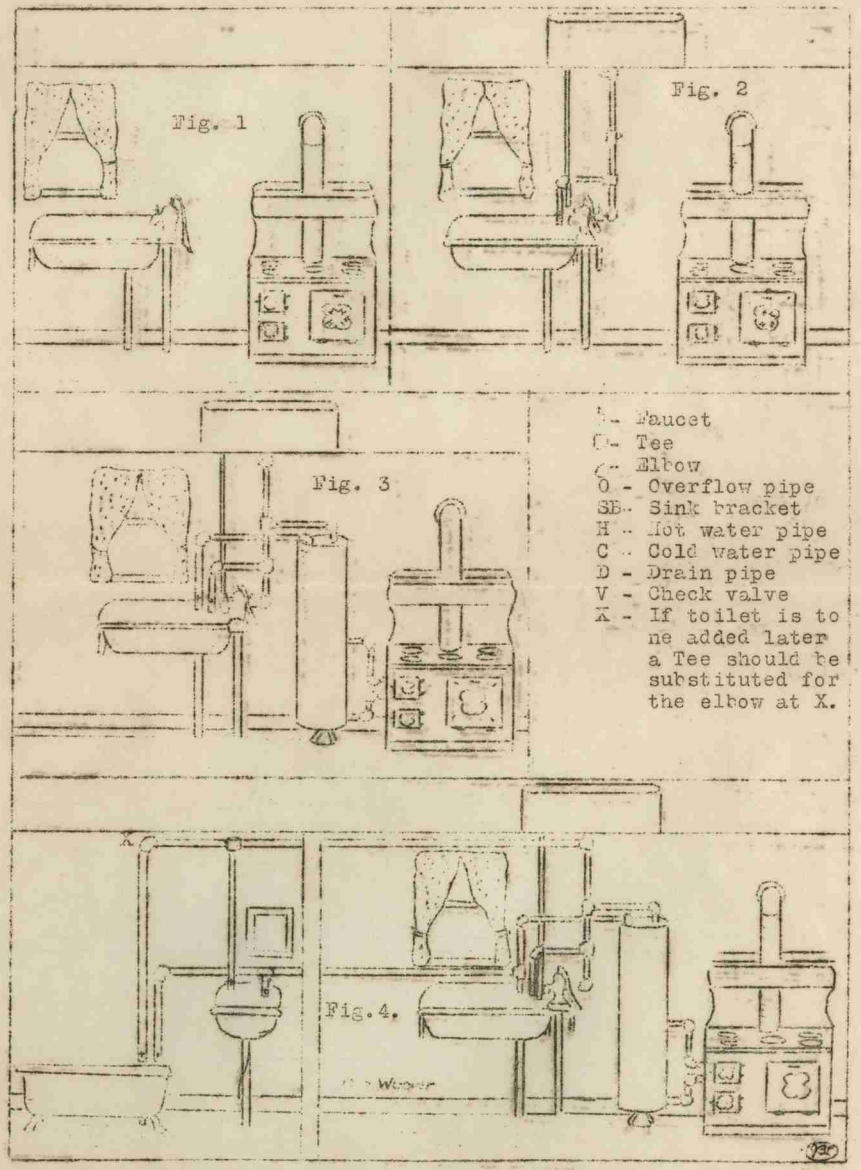
Fig. 1
Fig. 2
Fig. 3
F - Faucet
T - Tee
E - Elbow
O - Overflow pipe
SB - Sink bracket
H - Hot water pipe
C - Cold water pipe
D - Drain pipe
V - Check valve
X - If toilet is to ne added later a Tee should be substituted for the elbow at X.
Fig. 4.