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WISCONSIN BANKERS' FARM BULLETIN

Why Carry Water?

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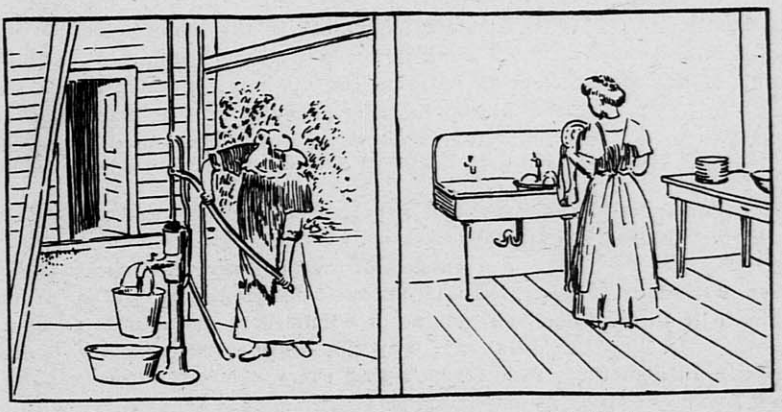

NOT THIS. DO THIS.

File this bulletin where you can find it

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Why Carry Water?

Running a house is no snap. Let's take the drudgery out of housework and the blue out of Monday. "Toting" water requires strength and time. The woman who can turn a tap in her kitchen just where the water is needed is relieved of carrying more than a ton of water a week. Almost any farmer's daughter can hear the call of the city when she sees this life of drudgery before her. Relieve this load with machinery at little expense.

When it takes time, strength and money.

We quickly adopt machinery for saving labor on the farm, but when it comes to making home life easier for the woman and more pleasant for all the family, we too often consider machinery in the home a luxury when it really is a necessity. Let's take a few minutes off and think about this. Think of the convenience of water in the kitchen, no water to lift and no water to pump. This is a step in the right direction in making farm life attractive to the children. Water is one of the absolute necessities of life. Is it where we want it?

Unfortunately, the source of supply is often such that some form of water distributing system is necessary. Wells are usually located for the convenience of the men, near the barn. We object to pumping water for our stock and so provide a gas engine or windmill to save ourselves time and labor. Why not make this same gas engine or windmill furnish the power for pumping every drop of water used for the house?

When a windmill or gas engine will do the job.

The cost of installing a water supply system may not be as expensive as we often think. You could install your own system. There are three methods of distributing water: (1) the elevated tank system, (2) the air and water pressure system, and (3) the fresh water direct from the well. Before installing any system the amount of water required should be figured accurately knowing that you ought to supply daily—

When it won't worry a gas engine or windmill to deliver any amount!

25 gallons per person.
10 gallons per horse.
10 gallons per cow.
2 gallons per hog.
2 gallons per sheep.

The elevated tank or gravity system is generally the cheapest to install. It requires a tank having an inlet, an outlet, and safety overflow leading into a sink or drain. The tank may be placed in the attic of the house if for house use only, or in the barn, on a tower or buried in a near-by hill. The objection to a tank in the house is that the size is limited on account of the weight of the water.

When a gravity system will distribute it for you.

The tank may be made of wood, concrete or steel. Wood is the best material to use for the tank. It does not sweat, will not rust, less trouble to erect, easier to keep from freezing, and will last 15 to 20 years. Where a large capacity is necessary, steel or concrete must be used. In the northern part of the state an exposed tank will give trouble unless well protected. A tank must be high to provide enough pressure to be of service, at least six feet above the point of delivery for every 100 feet of ¾ inch pipe through which the water flows. Tanks are heavy and must be supported by heavy timbers. A good location for a gravity tank is in the hay mow. A tank made of steel six feet in diameter and eight feet deep will hold 1,688 gallons. It would cost you not over $100 to install this tank. This figure includes tank, 200 feet of lead pipe for the house, fittings and labor of installing.

When air will do the job.

In an air and water (or hydro-pneumatic) system, air and water are stored in an air tight tank. It is an improvement over the elevated system because the tank can be placed in the basement of the house or in the ground near the well. An outfit large enough for a family of six, water for six horses, 20 head of cattle, and 10 hogs, can be installed for $200.

Tank 4 feet x 16 feet	$150.00
Power pump	40.00
Pipe fittings	5.00
Air gauge and water glass	5.00
Total	$200.00

A small tank for house use only could be easily installed for $100.00.

The principle on which this system operates is, as water is pumped in at the bottom and rises, the air above is compressed. This pressure is increased depending upon the amount of water forced in. The expansion of the air forces the water out. This system, to be successful, must be provided with a pump which will pump both air and water separately or at the same time. Extra amounts of air will be needed from time to time to prevent waterlogging, for as water is drawn from the tank air is absorbed by it and carried out so that fresh air must be supplied to take care of this loss.

The power required to run such an outfit is small. A 2-horse power engine would furnish this power besides enough power for other home conveniences. A windmill would furnish ample power.

The working capacity of a tank operating under this principle is one-third less than the total volume of the tank. The tank should be sufficiently large so that it will be necessary to pump only two or at most, three times a week. The advantages of the system are:

(1) No danger of freezing.

(2) Water under sufficient pressure for fire protection.

(3) No towers or expense of up-keep.

The disadvantages are:

(1) Water which is stored in a tank contains sediment which will be deposited. It should be provided with a man hole so that it can be cleaned out occasionally.

(2) Water may become flat or stale unless plenty of fresh air is provided.

When air will force water directly from the well.

The fresh water, or pneumatic system delivers the water direct from the well to the faucet, using compressed air as the power. A quantity of air is stored in a large air tank. On the opening of a faucet, the air in the tank rushes into the smaller tanks located under the water and forces the water out of the well.

This is the very latest development in water supply systems. The special pump and air compressor and air tank cost about $300. The advantages of this system are:

(1) One air storage tank will supply both hard and soft water by providing the extra cylinder or pump.

(2) Fresh water at all times.

Its disadvantages are:

(1) Storage of air difficult.

(2) Sand in water causes leaky valves.

(3) Not suitable to raise water over 125 feet.

Readers of these Monthly Farm Bulletins can secure future numbers from their local Wisconsin Bank, or by addressing Association Headquarters, 408 Pabst Building, Milwaukee, Wis.