

THE PROGRESSIVE FARMER.

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Farm Home Water-Works for Less Than the Price of a Mule.

It is the intention in this article to deal with the subject of the farm water supply from a practical standpoint and, in the main, to describe a plant designed and used by the writer, who is neither an expert in hydraulics nor an agent for supplies.

Look First to Your Drainage.

The first thing of importance to be considered is drainage, for without proper drainage it is impossible to have modern water conveniences in the farm home. There must be a sewer system for the disposal of sewage and it may be by natural drainage or by cesspool. By natural drainage there must be an abundant fall for at least 20 rods from the house and an outlet must be furnished that will never become stopped up. The main sewer must be as large as six inches diameter and should be of vitrified pipe with flange joints well cemented when laid. This is essential when trees are near, as the roots from them are apt to clog open joint pipe.

If the cesspool system is used the main sewer must enter directly into it. This system is recommended only when the ground is too level to use the other method, but it can be recommended as a successful manner of disposing of sewage.

The writer uses the natural drainage while a neighbor uses the cesspool and both systems have been in use for several years and neither has caused trouble. The cesspool, however, has to be cleaned sometimes, and it is a disagreeable job. It is also a little more expensive to install and may contaminate the well water supply if located near any open well.

Connected to the main sewer, in our plant, are two lavatories, two slop bowls, one bath tub, one closet, the overflow from two tanks and the drip from a well and cistern pump, besides the cellar drain. This gives complete drainage from the house and surrounding grounds, and as traps are used in all connections there is no odor or sewer gas which makes sanitary conditions perfect.

The Water Supply.

Both well water and rain water are under pressure in the house, well water only at the barn. The well water supply is derived from a 4-inch drilled well, 50 feet deep, pumped into a 10-barrel tank in the attic with an eight-foot, back-gear, iron wind mill. The rain-water is supplied to a like tank, also in the attic direct from the roof. This is supplemented with a house-pump connected with an underground cistern which is used only when the rainfall is deficient.

Owing to the fact that well water in the limestone district is very hard it cannot be used with soap, therefore the hot and cold water systems leading to lavatories, bath tub and kitchen sink are supplied with rain-



ARE YOU "LIVING" ON THE FARM OR JUST "STAYING" THERE?

This picture shows the dwelling of Mr. Frank M. Lutts, near Norwalk, Ohio, which contains the water-works plant he describes on this page. But that is not all. The house is provided with heat from a warm air furnace and light from a private gas plant; and it has telephone, rural mail, and macadam road connections with the city, this making, as Mr. Lutts puts it, a place where a farmer can "live"—something "every American farmer is entitled to and what the great majority can have if they will make the effort." Read this water-works article carefully and begin now to make the effort to "live" on your farm instead of just "staying" on it.

"Let Us Have Peace."

The prohibition campaign in North Carolina is ended. We go to press too early to report the result, but there is little doubt at this writing that the State has declared itself in favor of a sober citizenship; and because only with a sober citizenship can we have progressive farming and prosperous farm homes, The Progressive Farmer has done its part in the campaign according to a stern sense of duty and for no other reason. But our object is not to comment further upon the matter, but only to say now—

Let us have peace; let us bury the bitternesses and misunderstandings of the campaign and go to work to build up the State in other directions. Don't cherish prejudice against your neighbor who disagreed with you; don't waste time crowing over a victory, but get to work at something else and bury whatever hard feelings were engendered in this contest at once and for all time.

That is what The Progressive Farmer will do, and we hope our readers will do likewise.

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water, while well water is used for culinary purposes, flushing closet and stock watering. If it so happens that well water is soft considerable expense can be saved by not having to provide for both kinds of water as in the case described.

The Pumps and Water Connections.

The pump in the well is what is known as a "three-way" pump, and can be used by hand or windmill power, the mill connection being made by connecting the pump plunger to the mill rod. Water may be pumped up to the tank or delivered direct from the pump spout by turning a lever. The house pump is along the "pitcher" style and may be used the same as the well pump.

The hot water is furnished with a 30-gallon range boiler, heated by a water front in the kitchen range and at no additional cost for fuel, and absolutely without any trouble, as it is automatically filled from the tank above as fast as water is drawn from any of the bibs, or faucets. The cold water is drawn directly from the tank through a system of pipes laid parallel to the hot water pipes.

It is sometimes desirable to have a larger supply of water at the barn than can be supplied by the 10-barrel tank in the house. In this case a tank of any desired size can be erected in the barn loft, care being taken to have both tanks of the same height and on a level with each other. These two tanks can be connected with the pipe that leads to the barn, only an extension being needed; they will then act as one tank and the full supply from both may be drawn from any of the hydrants.

Piping and Tanks.

In putting in a plant it is advisable to use galvanized pipe and tanks only as there is no rust in the water and they will last much longer than black iron. The pipe used is one-inch for supplying the tanks and three-quarter pipe for leads to faucets. The tanks are of the long kind, as they afford greater surface, or floor space, thus distributing the weight over more area, a good feature where plants are installed in buildings not especially built to bear this extra weight. The 10-barrel tanks measure about 2x2 feet square and are about eight feet long. This size admits of handling through doors and windows and obviates the necessity of building by pieces in a low attic, thereby saving considerable expense. Besides the supply pipes, which should enter the tanks near the bottom, each one must be provided with an overflow pipe near the top which should be larger than the supply pipe, so that the tanks will never overflow. The supply pipes must be provided with a globe valve near the tanks so that the

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