

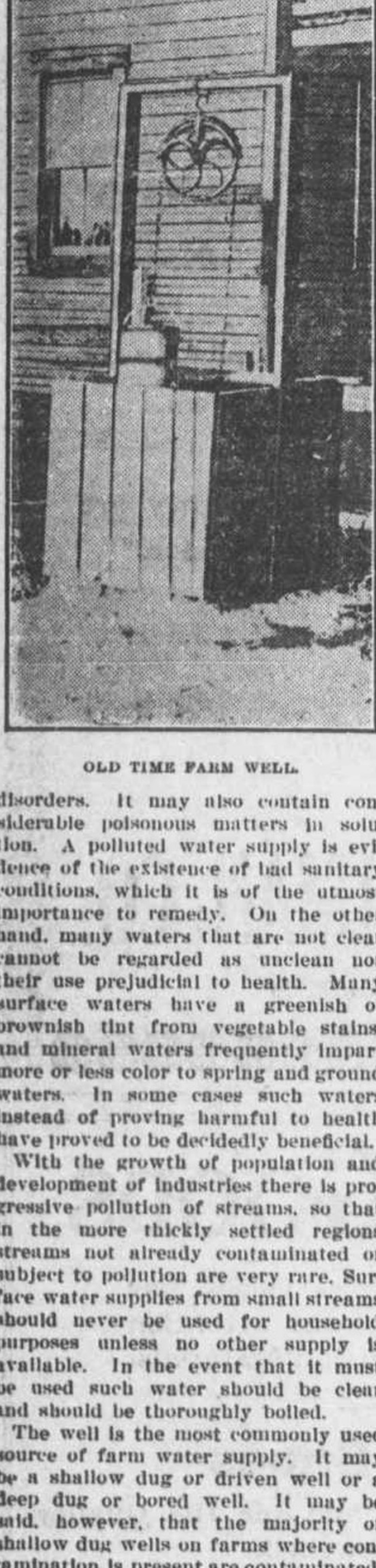
Farm and Garden

FARM WELLS AND POLLUTION.

Clean Water an Important Consideration on Every Farm.

[Prepared by United States department of agriculture.]

Perhaps the most important consideration in connection with the farm water supply is to get clean water. It has often been considered that clear water was clean water and that clean water must be clear. Neither one of these conditions is necessarily true. Water may be vilely polluted and at the same time be beautifully clear and sparkling. It may be clear and yet contain the invisible and deadly germs of typhoid fever or other intestinal



OLD TIME FARM WELL.

disorders. It may also contain considerable poisonous matters in solution. A polluted water supply is evidence of the existence of bad sanitary conditions, which it is of the utmost importance to remedy. On the other hand, many waters that are not clear cannot be regarded as unclean nor their use prejudicial to health. Many surface waters have a greenish or brownish tint from vegetable stains, and mineral waters frequently impart more or less color to spring and ground waters. In some cases such waters instead of proving harmful to health have proved to be decidedly beneficial.

With the growth of population and development of industries there is progressive pollution of streams, so that in the more thickly settled regions streams not already contaminated or subject to pollution are very rare. Surface water supplies from small streams should never be used for household purposes unless no other supply is available. In the event that it must be used such water should be clear and should be thoroughly boiled.

The well is the most commonly used source of farm water supply. It may be a shallow dug or driven well or a deep dug or bored well. It may be said, however, that the majority of shallow dug wells on farms where contamination is present are contaminated.

The government sanitary engineer offers the following practical suggestions for keeping different types of wells, especially shallow wells, from needless pollution:

Obviously the logical first step in securing a clean well water supply on the farm or anywhere else is to remove all the sources of possible contamination. Among the worst of these are the open privy vault, the leaching cesspool and barnyard filth. A well in ordinary pervious soil located lower than and within a hundred feet of any of these is almost certain to be polluted. Even though the well is located on higher ground than these sources of contamination, heavy pumping or dry weather may so lower the ground water level that it will reach the zone of contamination and thus pollute the well. It is evident, therefore, that the open privy vault and leaching cesspool should be discarded and a sewage purification system or at least a sanitary privy be used instead. Sewage, garbage, manure or other waste should never be dumped into sinks or fissures and most certainly never into old abandoned wells. An old well used for this purpose is very likely to communicate directly with the water bearing stratum from which other wells in the immediate vicinity draw their supply. Slops or waste water should never be thrown out of the back door or window on to the ground. If the pigs and chickens must run at large they should at least be kept away from the well. A box built around the pump and filled with manure in winter is an extremely unsafe way to prevent the pump from freezing.

Concrete manure pits, impervious floors and water tight drains are desirable features for farm buildings. If these are beyond the farmer's purse the manure pile should be placed a safe distance away from the well.

The well itself should be located as high as possible with respect to buildings, stock pens and chicken yards and as far away from all sources of contamination as convenience and local surroundings will permit.