

**THEORY OF SEWERAGE CONTAMINATION.**—If the wells of the city of Madison are in the condition we are led to believe by the articles published in the *States Journal* and *Morning Democrat*, my advice to the people is to go to work and have them cleaned. There is nothing more certain than that the filth and organic matter get in from the top or bottom of the well. At the bottom the water may come from a source that is impure, or has not been purified by passing through a solid strata of earth—the most perfect filter and purifier that can be made.

The idea that wells are contaminated from privy-vaults is simply absurd and ridiculous. Anybody ought to know better than to advance such a nonsensical theory. They certainly would not if they have the ability to reflect and compare cause and effect. A man writing an article on a subject of so much importance to the people ought to be possessed of more than one idea. All the articles that I have seen on this subject have laid themselves open to this construction; they have shown clearly that they had privy-vault on the brain; that all impurities found in a well must come from a vault.

Ignoring the fact that it must come in from the top as it does in most cases, or at the bottom, if these writers had investigated their subject, they would have found in the first place that a privy vault by the natural laws seals itself as perfectly as could be done with Rosendale cement, built in a well eighteen inches thick—about the distance that the contents of a privy produce an effect on the earth, which fact can be ascertained better by the spade than by chemistry. But if a chemist is going to make a test, the proper place is the earth between the vault and the well, and not ignore the true ways of organic substances getting into the well, and look to an impossible way for the reasons I have just given; and another just as good a one, which is that it would be impossible for the contents of the vault to pass through the earth five feet, without having all its noxious properties removed. Just think of a filter five feet thick, composed of earth, having the natural power of destroying all injurious properties, and rendering the water parts just as pure as they ever were. This has been demonstrated in England, where the whole of the sewerage of a large city is made to flow on a piece of ground that had been undrained; the water that came out of the lower ends of the drains was examined and tested by a commission appointed for the purpose, they pronounced it as good as the best of spring water, or could not be told from it. I would advise the writers of these articles to make some investigation before they write any more on this subject. It has been harped upon about the amount of sickness produced by using water from wells. Is it not very surprising that wells have been the main source of water supply from the earliest times, without being known until a State Board of Health was appointed.

The idea of starting waterworks may have found its way to some man's brain, and know that the people must be induced to give up the present water supply, naturally go to the State Board of Health to get up the scare through their influence, giving them to understand that the stock would be very remunerative and transferable. If the State Board had given this subject due consideration, with proper investigation, they would have advised the people to keep their wells clean, and not wait until the water becomes so thick with hair from animals that they cannot be kept out by straining through the teeth. Look out for toads, mice, rats, cats, angleworms, spiders, flies, cockroaches, lizards and many others. Why not look to this source for foul wells? We always have looked in this direction, which is without doubt the truer way. Do wells ever communicate with vaults? Yes, in a drift of very clean, coarse gravel, also where the water in the wells stands on a level with that in the vaults, conditions we will not often find; certainly not in Madison. Now, if the wells are in the condition we are led to believe, and they are the source of disease, why has not the sickness been produced? Where can another city be found that has never been visited by an epidemic? In 1854, we had about 15 or 20 cases of cholera; then, in 1857, 20 or 30 cases of dysentery of a very severe form; the greatest number of the cases were on Fourth Lake ridge. Is there a man to be found so stupid as to believe that the wells in that locality are contaminated, as has been claimed in these articles that have been so thoughtlessly written and published, without due investigation to get at the facts? My advice to you is not to put too much faith in chemistry. It will find sewerage in wells. But it is said there is none in Fourth lake, when we absolutely know that there is a large amount carried in through pipes laid for the purpose. By the way, how long will it be before Third lake will be a reservoir of filth that will be something to be alarmed at if it is not stopped?

The time will be when the shores of the lakes would be lined with beautiful residences, if not prevented by this ridiculous way of disposing of sewerage. I should think our city authorities ought to take warning from the cities of Milwaukee and Chicago, and they cannot be so led off as this city will be in time.

In conclusion, allow me to call the attention of the chemists to the fact that a well has a hole in the top. As they do not seem to have thought of this, I will also say to them that it would be better to find the evidence in the ground between the vault and the well, for the ground would be a saturated mass. The water being constantly renewed and renewed, makes it much harder and so much more difficult to find. It would also be well for them to remember that a one hundred dollar bill will no longer be worth anything as to its value than a piece of paper. We know that it will make mineral water in every spring in the country. Let us hear from you after this article is taken from the printer's press.

J. J. R.

**FRANCIS BRADDOCK.**—This board are now in session at Friesland, and about twenty-five applicants are waiting examination.