

measles, whom am I to believe? Again, if it be untrue and misleading to say that others of my fellow-townsmen are and have been suffering, it is because we are misled by our medical authorities, who are able to speak for themselves.

Now let us return to the second part of his letter, where he says, with reference to the statement of "A Sufferer" that this water is impregnated with lead, "It is obvious that the water cannot become impregnated with lead unless it passes through lead pipes or otherwise comes in contact with lead." This is virtually an acknowledgment that this water is not fit to come in contact with lead pipes; and I give it as my opinion that if water is not fit to come in contact with lead pipes, it is not fit for domestic use, because where is there a house in England which is fitted up entirely with iron water-pipes? I maintain that if the water be right the iron water-pipes are unnecessary, being far more inconvenient and far more expensive. He then goes on to say that the Corporation possess no-lead pipes. It is very well they don't.

Then he goes on, thirdly, to refer to an arrangement with the Huddersfield Corporation whereby all posterity in Mirfield must drink the Huddersfield water; and the Town Clerk now declares that no such arrangement has ever been entered into to the knowledge of the Corporation. And yet it is neither untrue nor misleading to tell you that it is a well-known fact in Mirfield. He goes on, fourthly, to deal with the charge that the Corporation are selling an article unfit for human food, which he challenges me to prove. Well, I can prove as much as he can. It is my doctor against his analyst, and I believe my doctor.

But I turn again to the first part of the third paragraph of his letter, where he says, "If they don't like the water after it passes through their lead service pipes, let them substitute iron service pipes." But he does not say, "If you people of Mirfield think proper, you can join your pipes to the Halifax main and buy better and cheaper." It is those statutory powers with which I disagree, and, as a last appeal, I again call upon our local authorities to call a meeting to discuss the best means of their repeal.—Yours truly, THOMAS FEATHER, "A Sufferer."

Mirfield, Sept. 17th, 1887.

TO THE EDITORS OF THE LEEDS MERCURY.

GENTLEMEN,—I have read with some interest the letter signed "A Sufferer," which appeared in your issue of Monday last, and the answer of the Huddersfield Town Clerk, which appeared yesterday morning.

As may be known to some of your readers, I have had a rather extensive, and by no means pleasant, experience of the Huddersfield Corporation and of its much-vaunted water-supply.

It is quite true that the water, as contained in the mains, does not contain any trace of lead, but it does contain a minute but very appreciable quantity of dilute sulphuric acid in a free state (i.e., uncombined with any base). This acid arises from the chemical decomposition of iron pyrites, which exist in considerable quantity in the district from which the Huddersfield water is collected.

Whether the habitual consumption of free sulphuric acid, however dilute, is beneficial or otherwise to the human system, does not seem to be a question admitting of much argument. The Corporation authorities are no doubt of opinion that the presence of this acid is one of the precious qualities which make their water-supply so particularly "pure and wholesome."

The direct action of the acid on the human system is, however, of slight consequence in comparison with the mischief caused indirectly by its presence where the water has to pass through, and generally to remain for some time stagnant in, leaden pipes.

It is a matter of common knowledge that the use of new lead pipes in contact with water—especially very soft water, such as is the Huddersfield water—is extremely dangerous. In the case, however, of most supplies the water itself forms its own protection against the pipe, by forming on it an insoluble coating of carbonate of lime and carbonate of lead. This the Huddersfield water does not do. The effect of the acid present in the water is to destroy such a coating where it already existed, and to prevent its formation in new pipes. The water therefore passes through a perpetually exposed surface of what is practically bright unprotected lead.

I doubt very much the correctness of the Town Clerk's statement that the Corporation have no leaden pipes. I know that some years ago they had many leaden mains, and particularly in outside and somewhat straggling districts like Mirfield; and I doubt very much whether they have all been removed. Assuming, however, the correctness of the Town Clerk's statement, is it fair, with respect to the service pipes leading from the main to the house of the consumer, to coolly suggest that because the Corporation cannot or will not deliver to him an alkaline or neutral water, he must be put to the trouble and expense of taking up his leaden pipes and substituting others of a different material? It must be remembered that the pipes in question are of the aggregate value of thousands of pounds. They have been laid in most cases by the Corporation themselves, and in all cases under bye-laws and regulations framed by the Corporation, and under which the use of leaden pipes was at least sanctioned and (under the construction put by the Corporation upon its own bye-laws) enforced in the case of ordinary domestic supply. To my knowledge, there have been cases in which permission to lay pipes of other material than lead has been refused by the Corporation; and in one instance at least after such refusal, lead-poisoning followed the use of the water through the leaden pipe when laid. In my own case, even after the trial at Leeds of my action against the Corporation, and when the exact nature of the danger from leaden pipes was therefore perfectly well known, permission for me to affix an iron pipe to the main instead of the leaden one previously existing was withheld for about a month, and I was informed that the application of my landlord was a "most unusual" one, and that a special meeting of the Waterworks Committee would have to be held before it could be granted.

Surely under these circumstances the Corporation, which has sanctioned, in some cases compelled, the use of the leaden pipes, and, in nearly all, actually laid them and been paid for so doing, should not now suggest that, in consequence of a defect in their water, the cost of changing the material of nearly all the pipes in the town should be thrown upon the consumers!

It must be borne in mind that the water-supply is not gratuitous, and it seems but reasonable that people who pay for water should be entitled to have it delivered to them in a state in which it is capable of being used under the usual and ordinary conditions, and by the existing mode of delivery.

It has been proved by the Borough Analyst of the Corporation that when the sulphuric acid in the water was neutralised with lime, the action of the water on lead altogether ceased. This mode of dealing with the water was actually tried by the Corporation and perfectly succeeded, but for some unaccountable reason was arbitrarily discontinued. Why should not the Corporation be compelled themselves to remedy the defect in the article in which they deal, rather than the unfortunate consumer, who has no voice in the management of their undertaking, nor notice of the danger impending over his head in consequence of the negligent manner in which the water is allowed to become charged with acid? As the case is well put in a leading article of the *Times* of the 17th July, 1886, on the case of "Milnes v. the Corporation of Huddersfield"—"If a water company may supply soft water, insist that the service pipes shall be of lead, so as to charge the water with poisonous matter, and be safe against all consequences, there cannot too soon be a change in the law."

Of the chemical evidence to which the Town Clerk refers, the less said the better. It will be sufficient to say that it completely broke down in cross-examination at the trial at Leeds, the witnesses being confuted by their own printed and published statements in other cases.

The Town Clerk's statement that "out of 94,000 consumers the Corporation has not a single complaint" may, for anything I know, be true at the present time; but if so, this statement is a mere evasion of the fact that during the last few years scores of complaints of lead-poisoning have been made to the Corporation. In the course of my action I proved more than a dozen cases, of which I had acquired a knowledge quite casually, and without any search or inquiry, one medical man swearing that he was and had been attending during the course of a few months no less than five persons, all of whom were suffering from lead-poisoning, caused, as he believed, by the water-supply.

With respect to the last paragraph of the Town Clerk's letter, the question of the quantity of the water supplied has, of course, nothing whatever to do with its quality.

I can only say that if "the districts less fortunately situated" are willing to sacrifice every other consideration to that of obtaining a plentiful supply, they ought, at least, to take it with a full knowledge of the attendant risk.

I must apologise for the length of this letter, but the matter in dispute being of public interest, and one in which I have some special knowledge, I have thought it necessary to enter into a rather long explanation, so that the matter may be brought fully and fairly before the public.—Yours obediently, JNO. J. MILNES.

Huddersfield, 16th September, 1887.

THE WATER-SUPPLY OF MIRFIELD.

TO THE EDITORS OF THE LEEDS MERCURY.

GENTLEMEN,—When I wrote a letter for your columns on the 10th inst., I did not expect having to reply to another from the Town Clerk of Huddersfield. But seeing that he charges me with making so many glaring mis-statements, which he says are calculated to cause a great deal of uneasiness to consumers who may be misled by those untrue statements, I have only two courses left open, viz., either to act the coward or to defend myself, and being a Yorkshireman I prefer the latter.

Now, let us analyse his letter. He commences by saying that the attention of the Waterworks Committee of the Corporation had been called to a letter under the above heading, signed "A Sufferer," and containing many glaring, untrue, and misleading statements. I may here say that if I have stated anything which is untrue or misleading, it was not my intention to do so. Let us see where my letter was untrue or misleading. In the first place, he says that it is untrue to say that the Huddersfield Corporation supply the Mirfield Local Board with water, but he acknowledges that they supply the people of Mirfield; therefore, so far my letter is morally correct. Then he goes on to say, secondly, "This water 'A Sufferer' states is impregnated with lead." I said our doctors tell us so, and I say so again. Moreover I feel it, therefore speak for myself. My doctor tells me I am suffering from the effects of lead in the water. That is neither untrue nor misleading. If my doctor tells me I am suffering from lead-poisoning, and the Town Clerk of Huddersfield says it is nothing of the kind and that it is